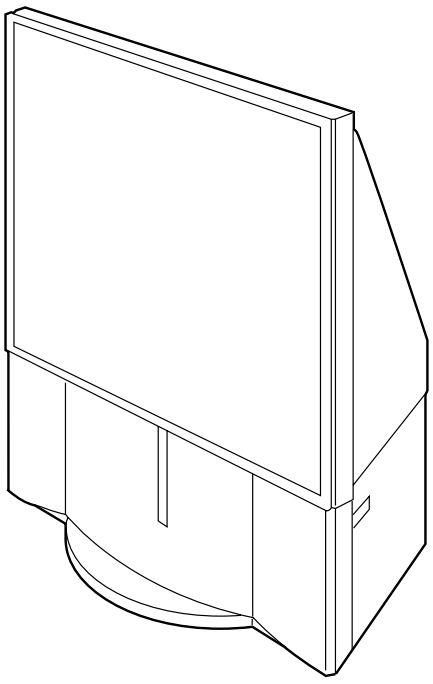
Self Diagnosis Supported model

SERVICE MANUAL AG-3X CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-FX43M31	RM-998	AUS	SCC-P95D-A
KP-FX43M61	RM-998	GE	SCC-P90D-A
KP-FX43M91	RM-998	ME	SCC-P94D-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-FX53M31	RM-998	AUS	SCC-P95C-A
KP-FX53M61	RM-998	GE	SCC-P90C-A
KP-FX53M91	RM-998	ME	SCC-P94C-A

RM-998



KP-FX43M31/M61/M91
KP-FX53M31/M61/M91

PROJECTION TV

SONY®

SPECIFICATIONS

	KP-FX53M31/M61/M91	KP-FX43M31/M61/M91
Projection system	3 picture tubes, 3 lenses, horizontal inline system	
Picture tube	7 inch high-brightnes monochorome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection lenses	High performance, large-diameter highbrid lens F1.0	
Screen size	53 inches	43 inches
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual (German) B/G	
Channel coverage		
B/G	VHF : E2 to E12 / UHF : E21 to E69 / CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 / CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 / UHF : A14 to A79/ CATV : A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	15W + 15W (10% distortion)	
Number of terminal		
(Video)	Input: 4 Output: 1 Phono jacks; 1 Vp-p, 75 ohms	
(Audio)	Input: 4 Output: 1 Phono jacks; 500 mVrms	
(S Video)	Input: 2 Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	
(Component Video)	Input: 2 Phono jacks Y: 1 Vp-p, 75 ohms, sync negative P_B/C_B: 0.7 Vp-p, 75 ohms P_R/C_R: 0.7 Vp-p, 75 ohms Audio: 500 mVrms	
(G/B/R/HD/ VD Video)	Input: 1 Phono jacks G: 0.7 Vp-p, 75 ohms B: 0.7 Vp-p, 75 ohms R: 0.7 Vp-p, 75 ohms HD: 0.7 Vp-p, 75 ohms VD: 0.7 Vp-p, 75 ohms	
(Headphones)	Output: 1 Stereo minijack	
Power requirements	110 - 240 V AC, 50/60Hz	
Power consumption (W)	260 W	
Dimensions (w/h/d, mm)	1136 × 1438 × 666	926 × 1255 × 534
Mass (kg)	86	65.5

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF HTE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SELF DIAGNOSIS FUNCTION

The unit in this manual contain a self-diagnostic function. If any error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1-1. DIAGNOSTIC TEST INDICATORS

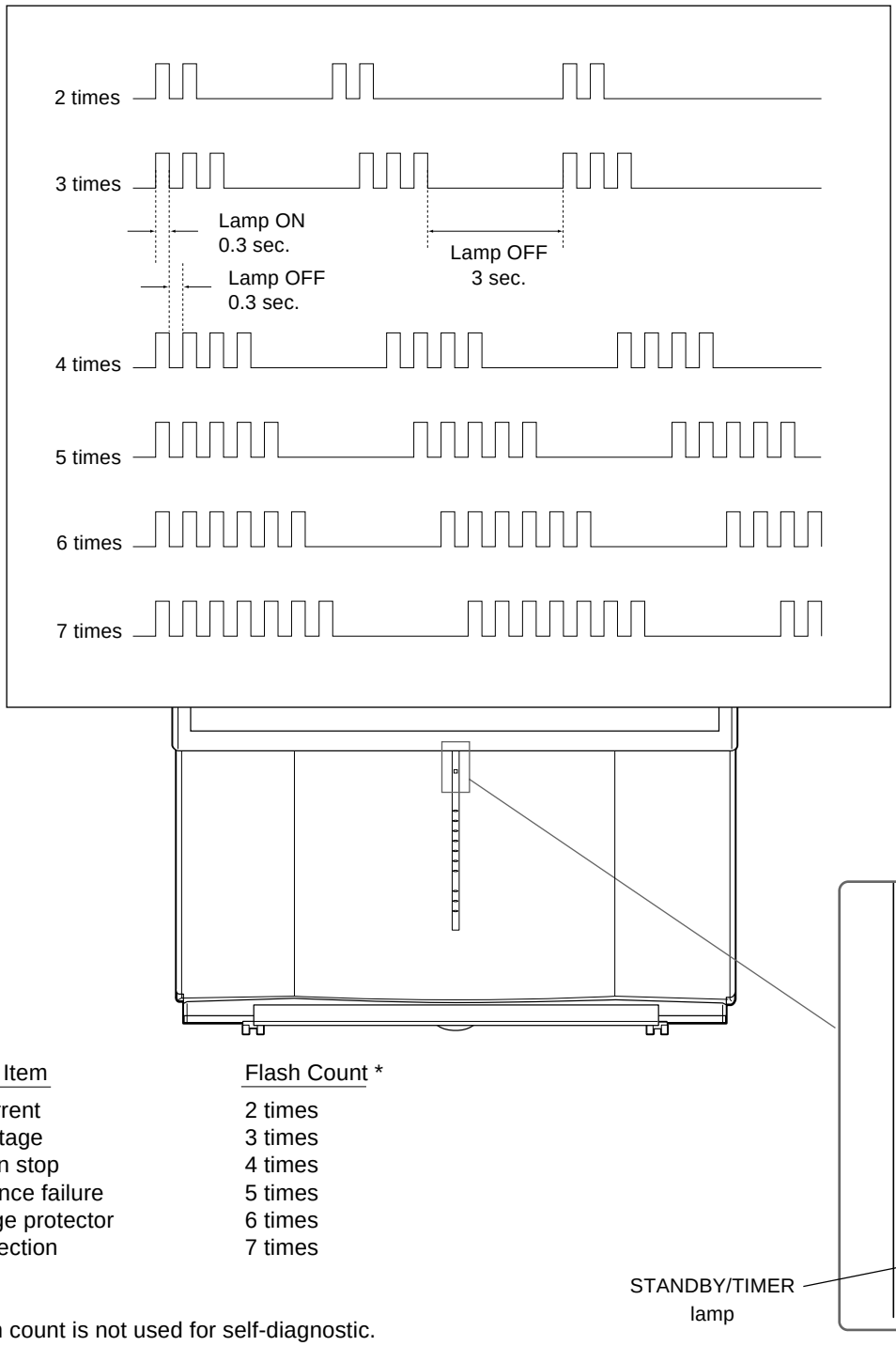
When any error occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a “0”.

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/ Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	————	• Power cord is not plugged in. • Fuse (F6701) is burned out. (G board)	• Power does not come on. • No power is supplied to the PJ. • AC power supply is faulty.
• +B overcurrent (OCP)	2 times	002:000 or 002:001 ~ 255	• H. OUT Q8024 is shorted. • H. LIN Q8027 is shorted. (D board)	• Power does not come on. • Load on power line is shorted.
• +B overvoltage (OVP)	3 times	003:000 or 003:001 ~ 255	• HV OUT Q8043 is shorted. • PH6001 faulty. • +19V is not supplied. (G board)	• +135V is too high.
• Vertical deflection failure	4 times	004:000 or 004:001 ~ 255	• V. OUT IC8003 faulty. (D board)	• Vertical deflection pulse is stopped. • Vertical size is too small. • Vertical deflection stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001 ~ 255	• G2 is improperly adjusted. (Note 1) • CRT problem. • Video OUT IC9101 (CR board), IC9201 (CG board), IC9001 (CB board) are faulty. • IC8306 (J board) and IC4300 (E board) are faulty. • No connection E board to CR board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
•Horizontal deflection failure or +5v down or High Voltage failure	6 times	006:000 or 006:001 ~ 255	• IC6502 (G board) faulty. • HV Circuit failure.	• Abnormal High voltage. • Abnormal H.drive. • +5v down.
• Audio Protection	7 times	007:000 or 007:001 ~ 255	• Power supply fails. • IC1203,1204 (A board) faulty.	• There is picture but speaker does not release sound.
• Micro reset	————	101:000 or 101:001 ~ 255	•Discharge CRT (CR, CG, CB boards) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1 : Refer to screen (G2) adjustment in section 3-2 of this manual.

1-2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count *
+B overcurrent	2 times
+B overvoltage	3 times
V deflection stop	4 times
White balance failure	5 times
High voltage protector	6 times
Audio Protection	7 times

* One flash count is not used for self-diagnostic.

1-3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

1-4. SELF-DIAGNOSTIC SCREEN DISPLAY

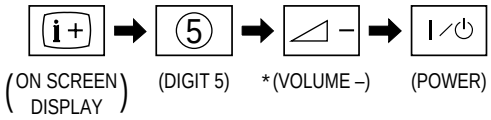
For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

[To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

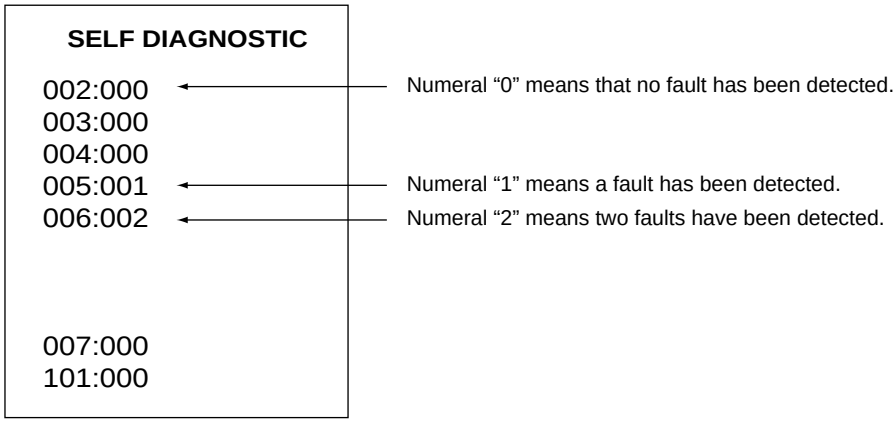
Self-Diagnosis screen display

1-5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY



* : Note that this differs from entering the service mode (volume +)

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen



during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]

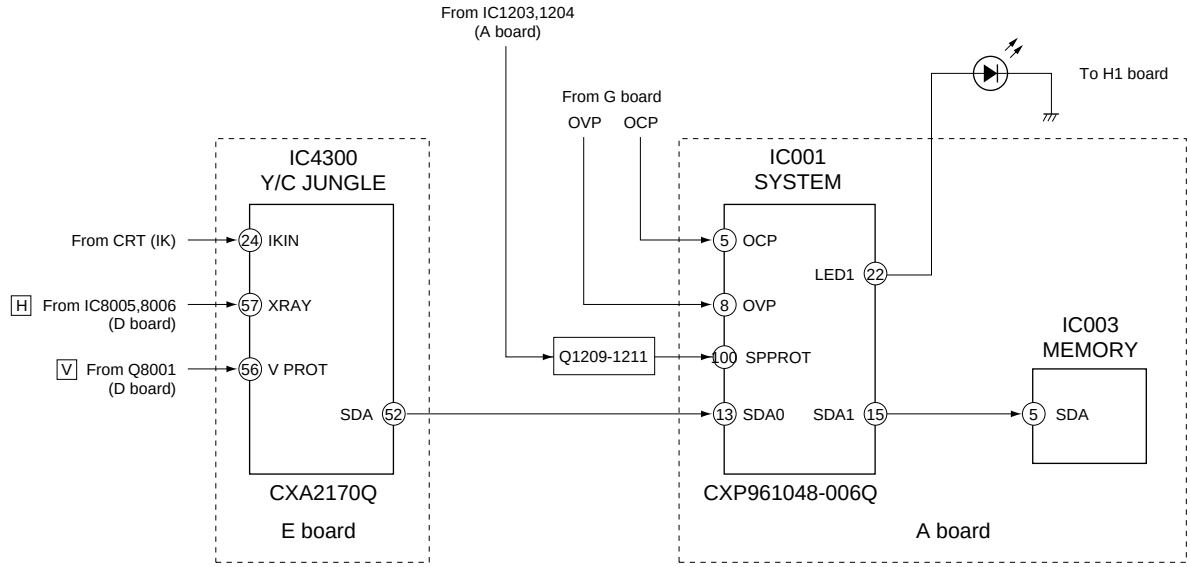
To clear the result display to “0”, press button on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Press “⑧” button (It will indicate “CLEAR” on the screen.) ➡ Press “⓪” button (The “CLEAR” display change to red color.)

[Quitting Self-diagnostic screen]

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

1-6. SELF-DIAGNOSTIC CIRCUIT

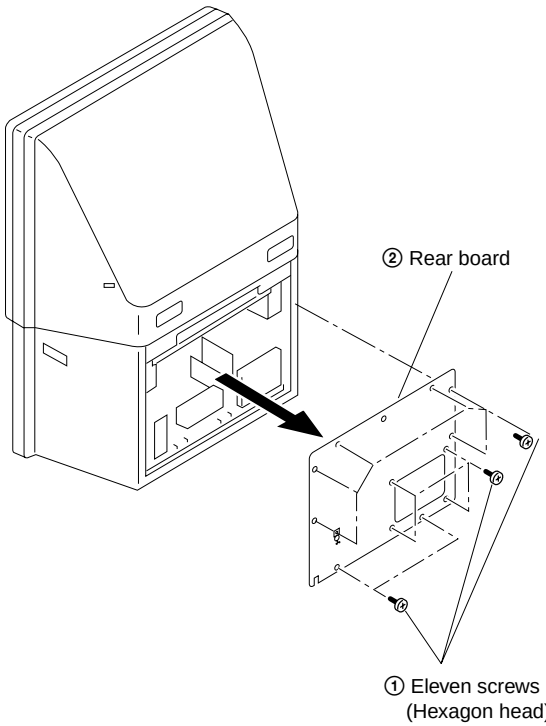


+B overcurrent (OCP)	Occurs when an overcurrent on the +B (135 V) line is detected by Q6504. Then the voltage to pin 5 of IC001 goes UP. The unit will automatically turn off.
+B overvoltage (OVP)	Occurs when an overvoltage on the +B (135 V) line is detected by IC6502. Then the voltage to pin 8 of IC001 goes UP. The unit will automatically turn off.
Vertical deflection failure	Occurs when an absence of the vertical deflection pulse is detected by Q8001 and D8001. Shut down the power supply.
White balance failure	If the RGB levels do not balance or become low level within 5 seconds. This error will be detected by IC4300. TV will stay on, but there will be no picture.
High voltage or Horizontal Deflection Protect	Occurs when an overvoltage of horizontal pulse is detected by D8038 and IC8006. If the voltage of pin 1 of IC8006 goes to High, the voltage to pin 57 of IC4300go to UP. The unit will automatically turn off.
Audio Protector	If the Audio out lines become DC.This error will be detected by Q1211, Q1209 and Q1210. The unit will automatically turn off.

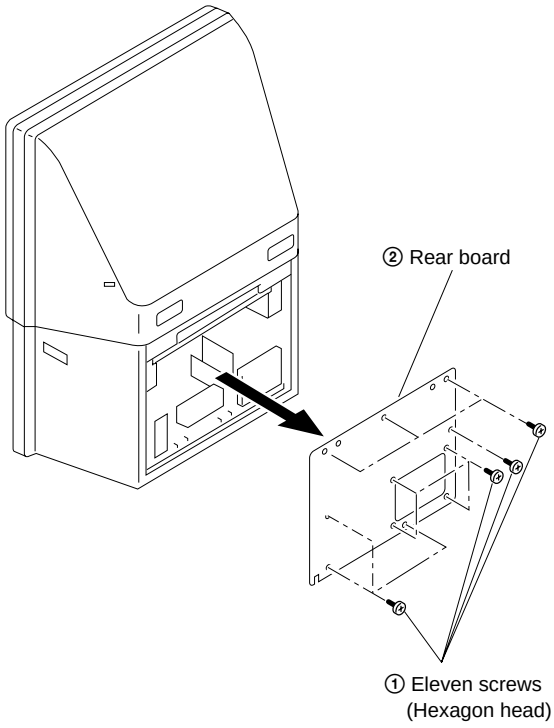
SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

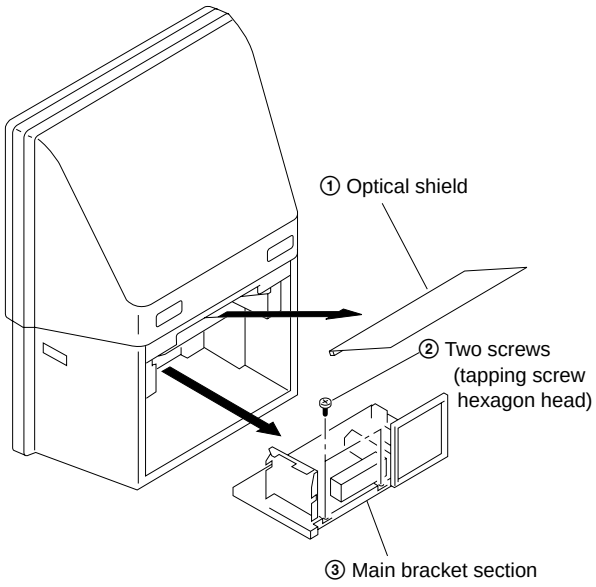
(1) KP-FX43



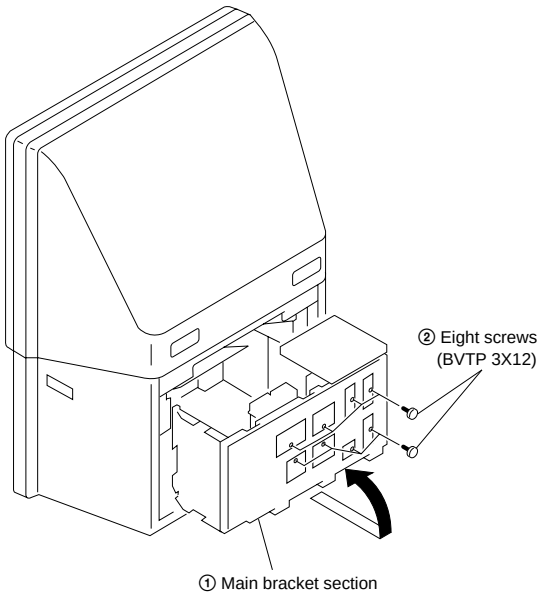
(2) KP-FX53



2-2. MAIN BRACKET REMOVAL



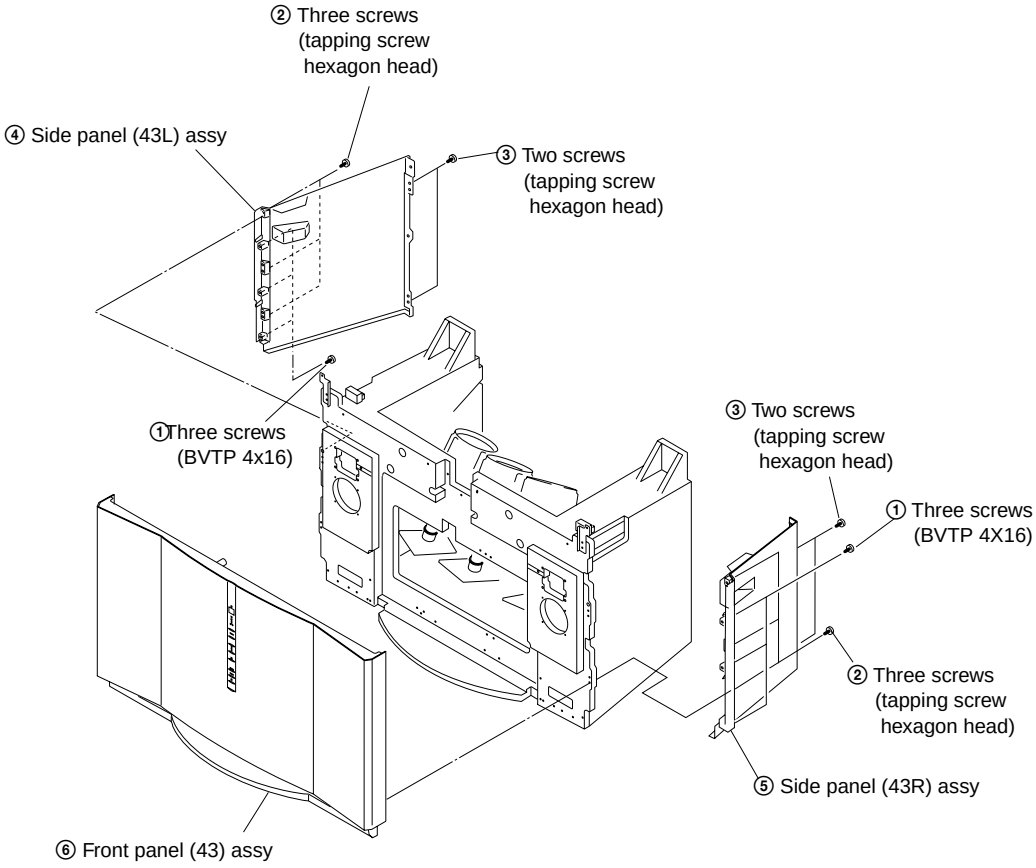
2-3. SERVICE POSITION



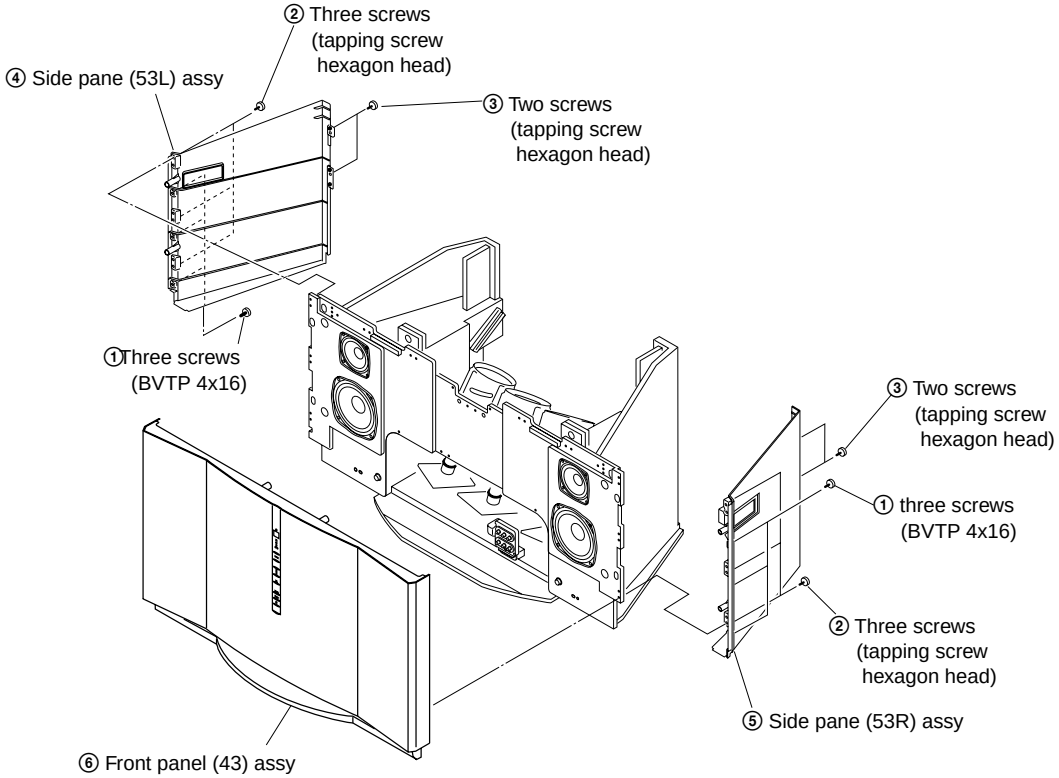
② COVERS
Cut them off with a plier or the like from chassis assembly in case of checking printed circuit boards.
After checking, turn over the covers and secure them with screws.
(**screws 7-685-648-79 -BVTP 3X12**)

2-4. FRONT PANEL REMOVAL

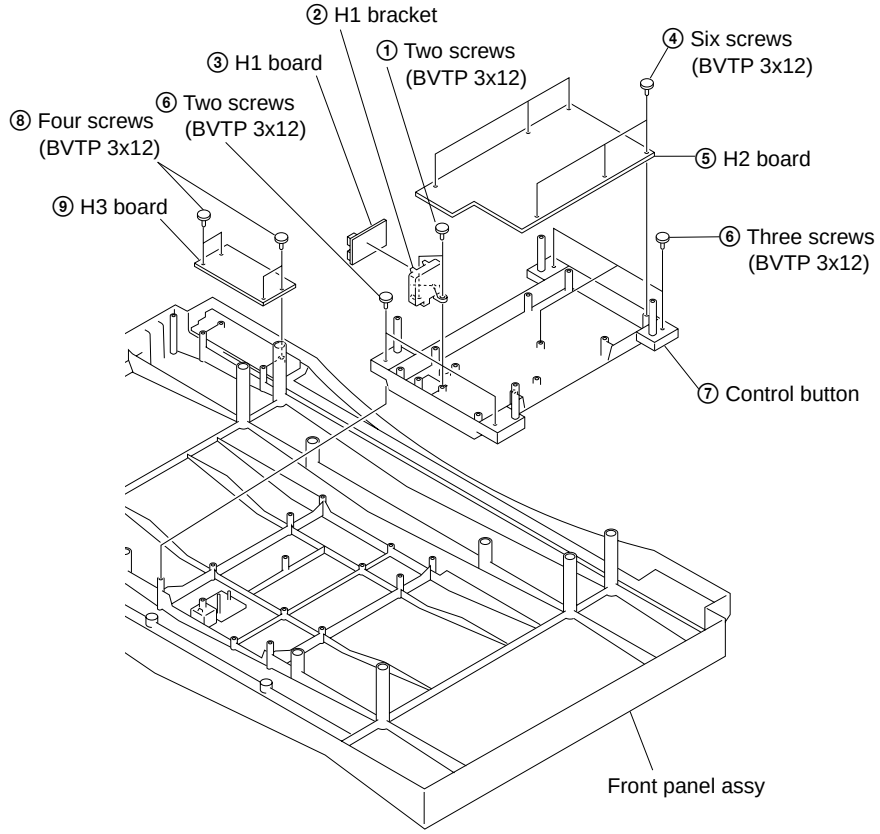
(1) KP-FX43



(2) KP-FX53

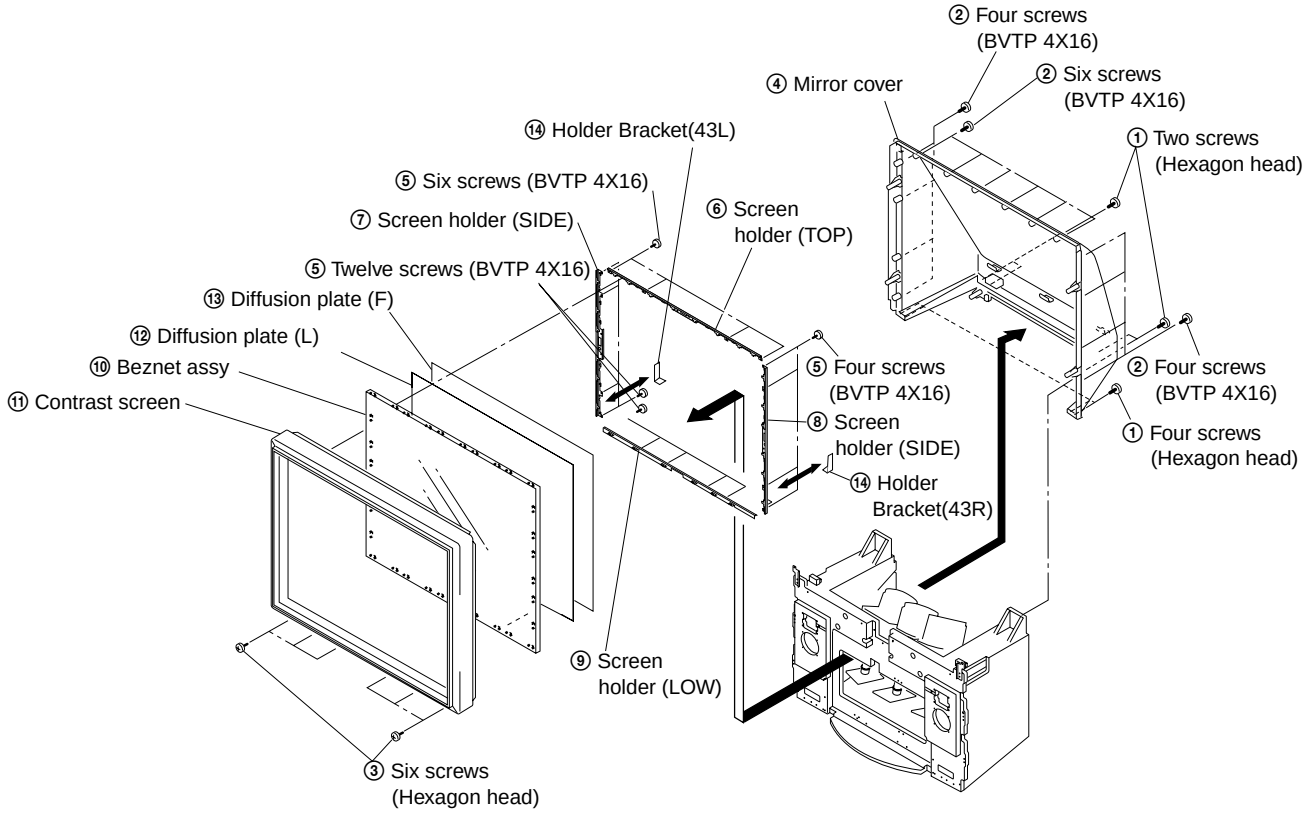


2-5. H1, H2 AND H3 BOARDS REMOVAL



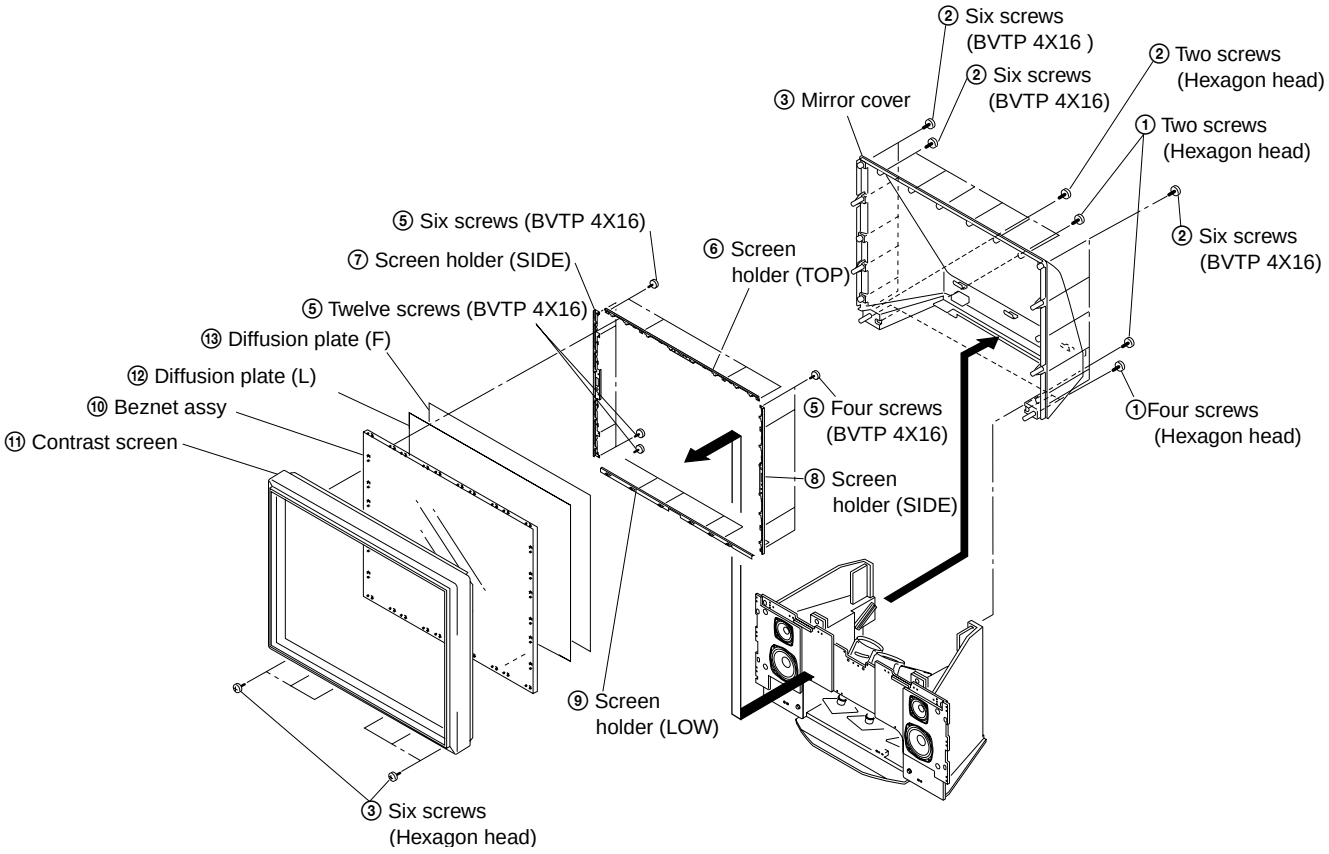
2-6. BEZNET AND MIRROR COVER REMOVAL

(1) KP-FX43

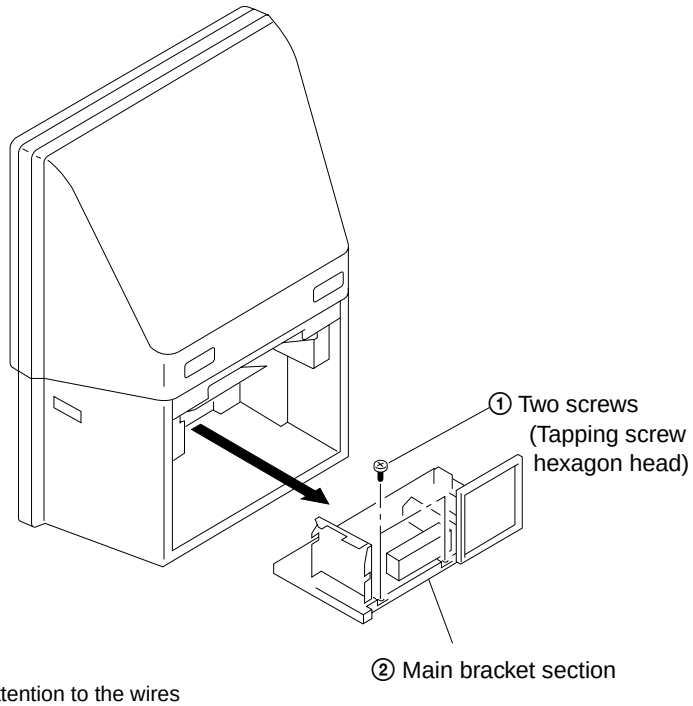

② Four screws (BVTP 4X16)
④ Mirror cover
② Six screws (BVTP 4X16)
⑭ Holder Bracket(43L)
① Two screws (Hexagon head)
⑤ Six screws (BVTP 4X16)
⑦ Screen holder (SIDE)
⑥ Screen holder (TOP)
⑤ Twelve screws (BVTP 4X16)
⑬ Diffusion plate (F)
⑫ Diffusion plate (L)
⑩ Beznet assy
⑪ Contrast screen
⑤ Four screws (BVTP 4X16)
⑧ Screen holder (SIDE)
⑭ Holder Bracket(43R)
② Four screws (BVTP 4X16)
① Four screws (Hexagon head)
⑨ Screen holder (LOW)
③ Six screws (Hexagon head)

2-6. BEZNET AND MIRROR COVER REMOVAL

(2) KP-FX53

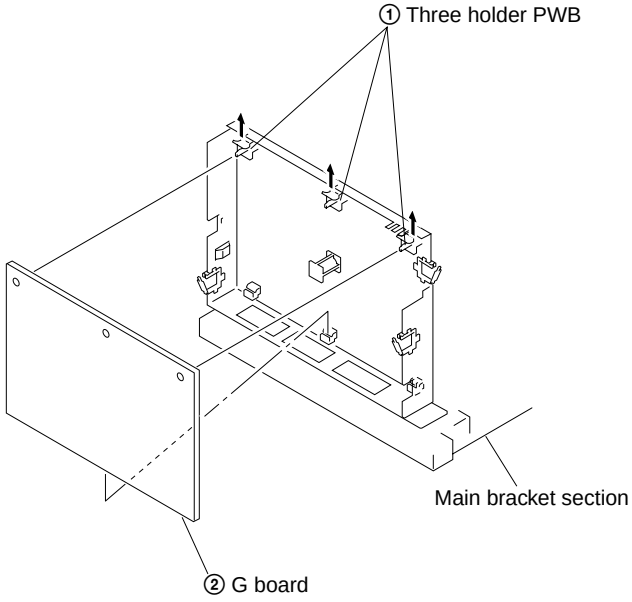


2-7 MAIN BRACKET REMOVAL

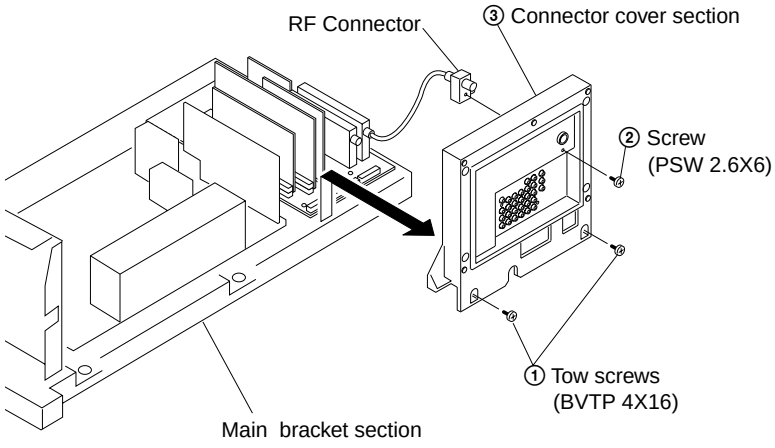


※ Pay particular attention to the wires of each printed circuit boards when puling out the mainbracket.

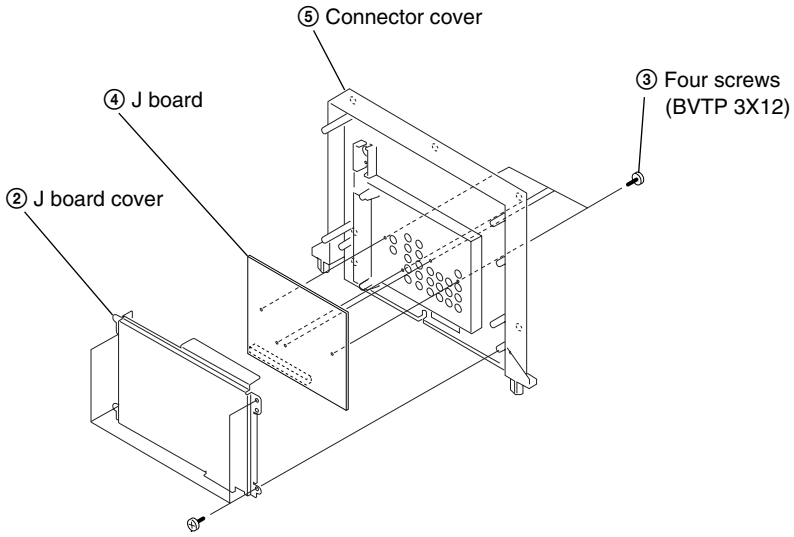
2-8. G BOARD REMOVAL



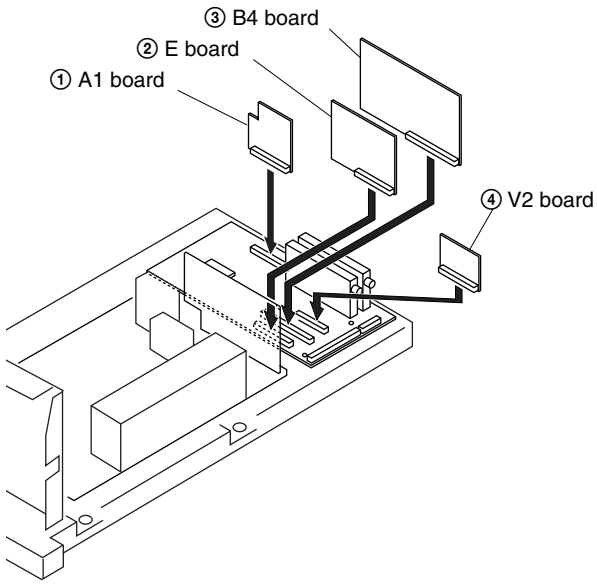
2-9. CONNECTOR COVER REMOVAL



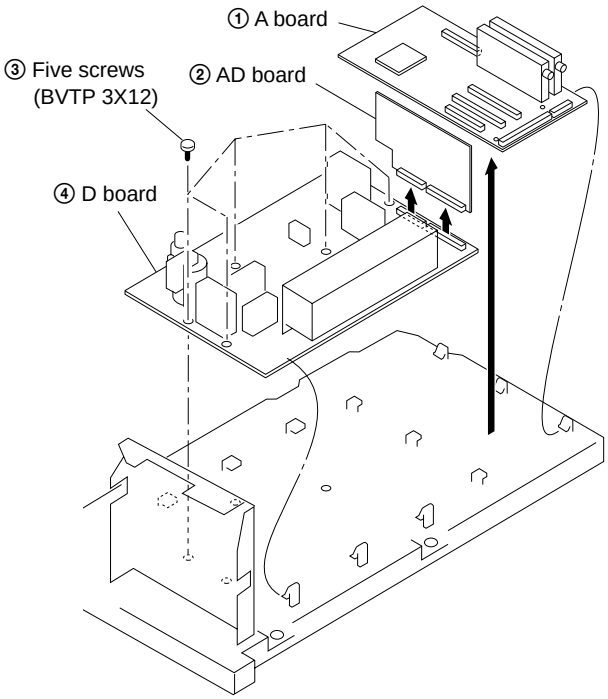
2-10. J BOARD REMOVAL



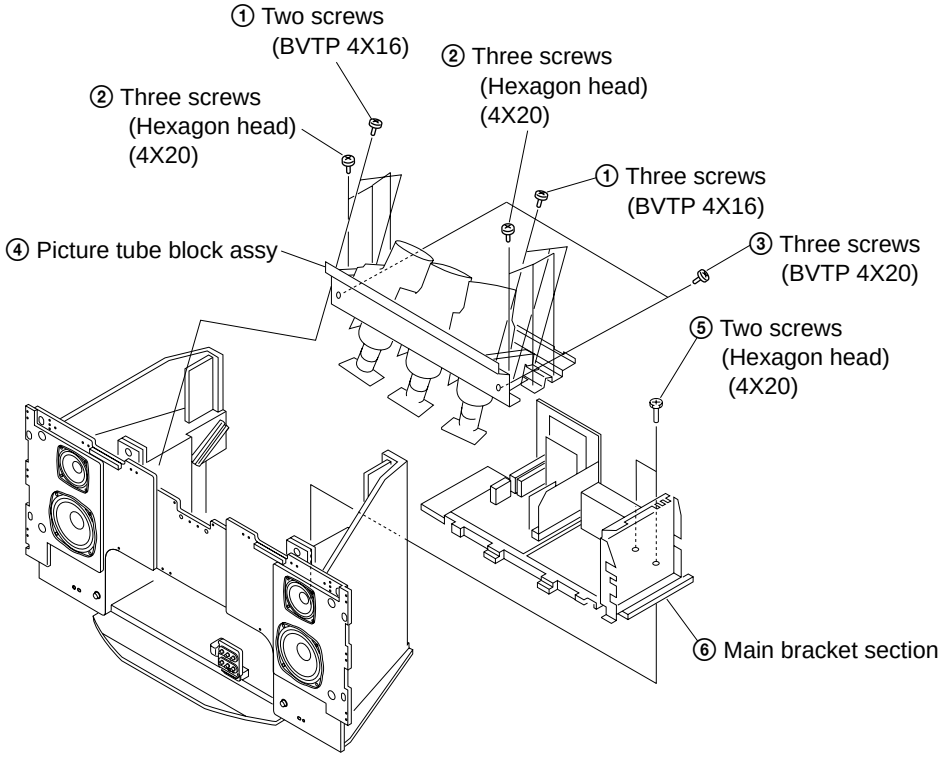
2-11. A1, E, B4, AND V2 BOARDS REMOVAL



2-12. A, AD AND D BOARDS REMOVAL

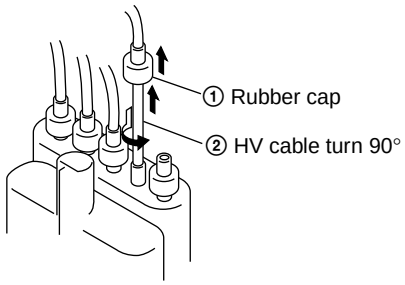


2-13. PICTURE TUBE REMOVAL

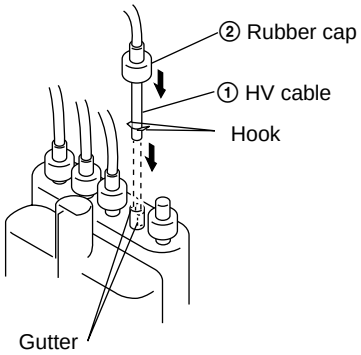


2-14 HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

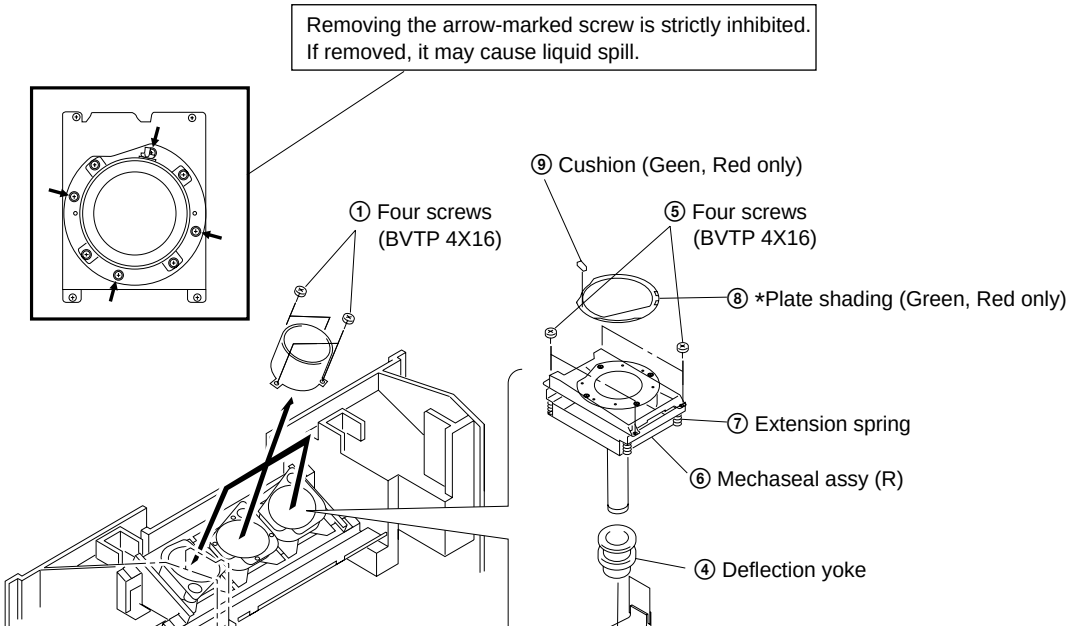
(1) Remover



(2) Installation



2-15. MECHASEAL


Removing the arrow-marked screw is strictly inhibited.
If removed, it may cause liquid spill.
⑨ Cushion (Geen, Red only)
① Four screws (BVTP 4X16)
⑤ Four screws (BVTP 4X16)
⑧ *Plate shading (Green, Red only)
⑦ Extension spring
⑥ Mechaseal assy (R)
④ Deflection yoke

* : 1.When installing the Machaseal assy (RED, and GREEN), be sure to reuse the Plate shading.
2.Check alignment to make sure the Plate shadings are the right positions as following Fig 2-5.

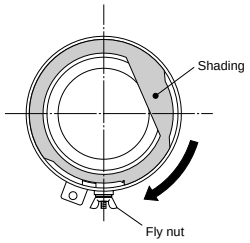


Fig 2-5

SECTION 3
SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

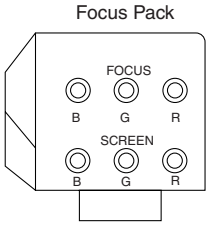


Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT (FINE ADJUSTMENT)

1. Turn on the power of the set.
2. Select VIDEO1 mode without signal.
3. Supply DC 175 ± 0.5 V from external power supply to KR, KG or KB of CR board, CG board and CB board.(Fig.3-2)
4. Adjust red, green and blue screen voltage to until retrace line disappears with screen VR on the focus pack.
5. Confirm if retrance can be seen.

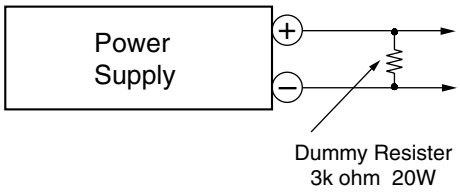


Fig. 3-2

3-3. FOCUS ROUGH ADJUSTMENT

1. Loose the lens screw.
2. Set in the service mode.
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press "①" or "④" button on the commander and select "PJE", press "⑥" three times on the Commander to display the test signal (crosshatch) on the screen.

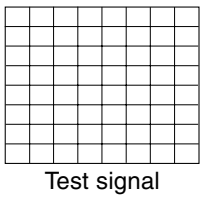


Fig. 3-3

5. Rotate the green lens and align to obtain the best lens focus at the center area.
6. Rotate the green focus VR on the focus pack and align to obtain the best electrical focus in the center area.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.

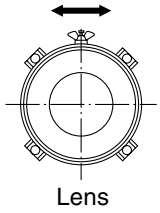


Fig. 3-4

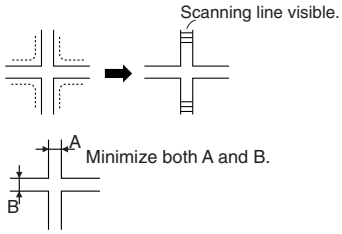
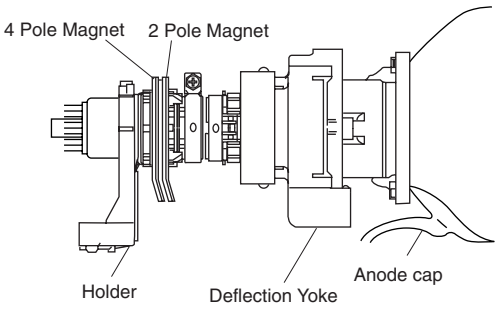


Fig. 3-5

3-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color.
3. Loosen the deflection yoke setscrew and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 3-6

3-5. 2-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Adjust the 2-Pole Magnet so that the bright spot should be centerd.
   (center of the dot doesn't move)
5. Align the green focus VR and set for just (precise) focus.

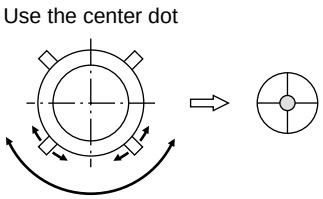


Fig. 3-8

3-6. CENTERRING MAGNET ADJUSTMENT

1. Receive the SPCB signal.
2. Cover the both red and blue picture lenses with the lens caps to show only the color.
3. Adjust the green centering magnet to put the center of the SPCB signal to the center of the screen.
4. Adjust red centering magnet in the same way.
5. Adjust blue centering magnet in the same way.

3-7. 4-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
5. Perform the same alignment for red.

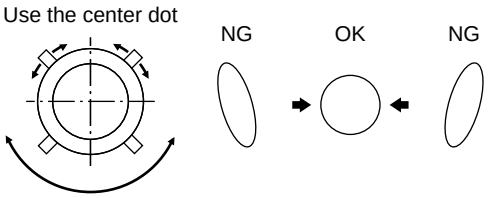


Fig. 3-9

3-8. DEFOCUS ADJUSTMENT (BLUE)

1. Receive the Dot signal.
2. Cover the both red and green picture lenses with the lens caps to show only the color.
3. Turn the blue focus VR on the focus pack to the right to make the round dot elipical.
4. Set 4 pole magnet tab angle 12°.
5. Rotate 4 pole magnet keeping Tab angle 90° make the spot shape vertical ellipse.

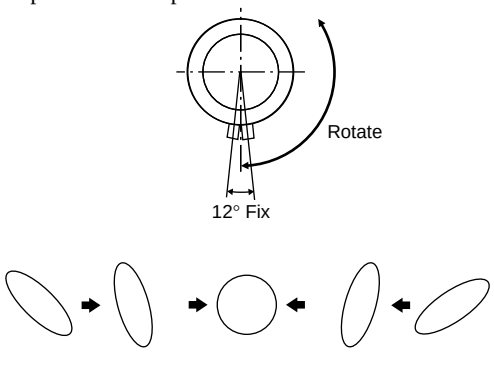


Fig. 3-10

3-9. GREEN, RED AND BLUE FOCUS ADJUSTMENT

3-9-1. Green, Red and Blue Lens Focus Adjustment

1. Receive the cross hatch signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green lens and adjust to obtain the best lens focus at the center area.
4. Fix lens screw.
5. Repeat above process for red and blue.
6. Rotate the blue lens and adjust to obtain the best lens focus at the both side area.
7. Fix blue lens screw.

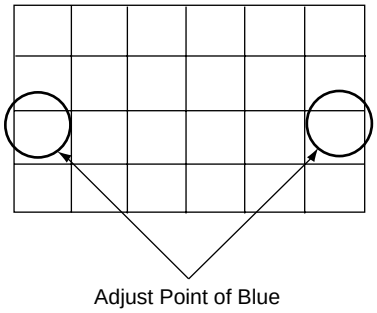


Fig. 3-11

3-9-2. Green and Red Dot/Hatch Electrical Focus Adjustment

1. Receive the signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus VR on the focus pack and adjust to obtain the best electrical focus in the adjust point.
4. Repeat above process for red and blue.

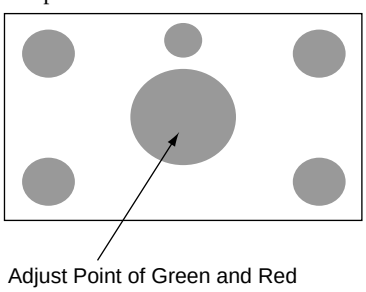
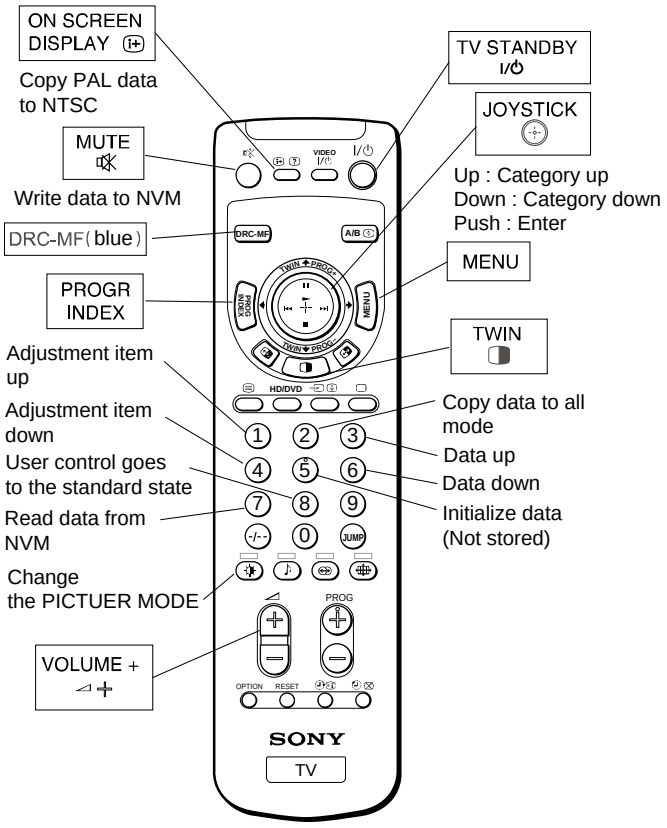


Fig. 3-12

3-10. ADJUSTMENTS WITH COMMANDER

Service adjustment to this model can performed with the supplied remote commander RM-998



3-10-1. How to Select Each Mode

	50 Hz (PAL)	60 Hz (NTSC)	WIDE 60 Hz (NTSC)	WIDE 50 Hz (PAL)
DRC1250	○	○	○	○
DRC100	○	○	○	○
TWIN	○	○	×	×
INDEX	○	○	×	×

1. Selection of Mode Between 50 Hz and 60 Hz

50 Hz : Enter the PAL signal.
60 Hz : Enter the NTSC signal.
WIDE 60 Hz : Enter the NTSC signal MENU WIDE ON.
WIDE 50 Hz : Enter the PAL signal MENU WIDE ON.

2. Selection of DRC Mode

1) Press "DRC-MF (blue)" button on the commander, repeatedly until displays the mode that you want to select on the screen.

→ DRC1250 → DRC100 → PROGRESSIV

Note : The DRC-MF mode is not selectable when using the "PROGRAM INDEX" or "TWIN" mode is turned "ON".

3. Selection of WIDE mode

1) Press "MENU" button on the commander and move "⊕" up or down to enter the "FEATURE" ➧ "WIDE MODE".
2) Move "⊕" up or down to select "ON" or "OFF", and push "⊕ (ENTER)" button.
3) Press "MENU" button to return to normal screen.

4. Selection of TWIN mode

1) Press "◑ (TWIN)" button on the commander.
2) Press "◑ (TWIN)" button again to return to normal screen.

5. Selection of INDEX mode

1) Press "PROGR INDEX" button on the commander.
2) Press "PROGR INDEX" button again to return to normal screen.

3-10-2. How to Enter Service Mode

1. Turn on the main power switch to place this set in standby mode. (LED will light in red.)
2. Press the buttons on the commander as follows, and enter service mode.

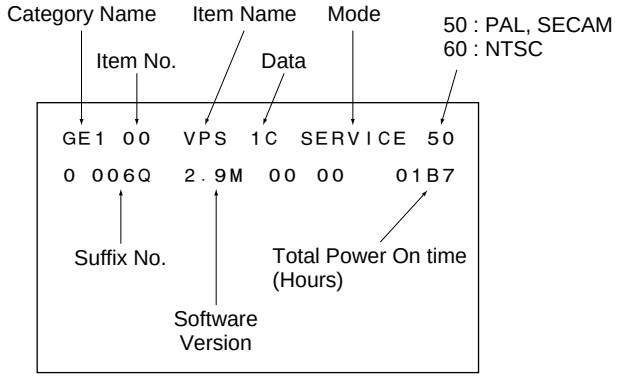
i+ (ON SCREEN DISPLAY) ➡ ⑤ (DIGIT 5) ➡ 🔊+ (VOLUME +) ➡ I/⏻ (TV STANDBY) ➡ Enter the "Service mode"

3-10-3. Method of Cancellation from Service Mode

1. Set the standby mode (Press "I/⏻ (TV STANDBY)" button on the commander), then press "I/⏻ (TV STANDBY)" button again, hereupon it becomes TV mode.

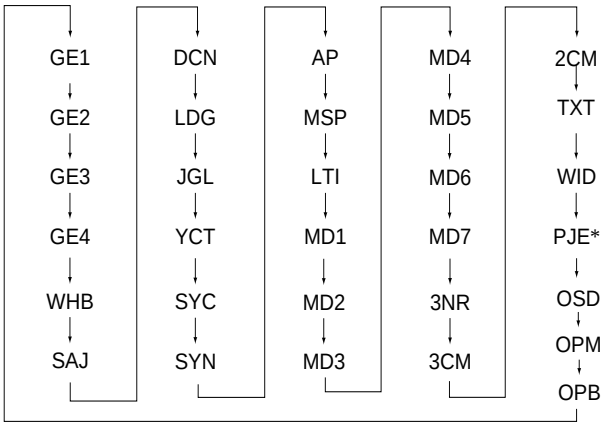
3-10-4. How to Adjustments

1. Set in the service mode, the following screen will appear.



2. Press "①" or "④" button on the commander to select the adjustment item.
3. Press "③" or "⑥" button on the commander to change the adjustment data.
4. Move "⊕" up or down to select the adjustment category.

   When move "⊕" up (category up), service mode changes in the order as shown below.



* : When it moves from PJE to other categrys, repeat ① or ④ button and press it.

3-10-5. How to Write the Data

1. Set in the service mode.
2. Press "①" or "④" button on the commander, select the adjustment item, and press "③" or "⑥" button to change the data.
3. Press "🔇 (MUTE)" button on the commander and it will indicate "WRITE" on the screen.
4. Press "⓪" button on the commander to write into memory. (The "WRITE" display will be changed to red color while executing, and back to "SERVICE".)

Commander Function (Except PJE mode)

Button	Mode	Description
🔇 + ⓪	WRITE	Writes data to NVM.
⑦ + ⓪	READ	Reads data from NVM.
⑧ + ⓪	NORMAL	All user control goes to the standard.
⑤ + ⓪	INITIAL	Service data initialization. Not stored. (Be sure not to use usually)
② + ⓪	COPY	Do not operate with a remote commander.
ⓘ+ + ⓪	WRT5060	(The data vary with among mode.)

Note : Before changing to other modes, press "🔇 (MUTE)" + "⓪" buttons on the commander to write the data. (Omission of this operation causes the data to be returned to the data before adjustment.)

: Confirm the adjustment mode before writing data for data values because to vary in each adjustment mode.

: The adjustment item that there are no relations in the adjustment is not to change data values because all items are written in each adjustment mode.

3-10-6. Memory Write Confirmation Method

1. After adjustment, turn off the AC main power switch off.
2. Turn the power switch ON and set in service mode.
3. Call the adjustment items again to confirm adjustments were made.

Note

- Common : The data value of each mode. Other are set up by each mode.
- : Shaded items are fixed data.
- : Though data value is indicated on the screen, it is not used.
- Standard data listed on the Adjustment Item Table are reference valies, therefore it may be different for each model and each mode.
- Note for Different Data :

  Those are the standard data values written on the microprocessor. Therefore , the data values of the modes and stored respectively in the memory.
  In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

Category	Item		Function	Standard Data									Device Name
				50 Hz									
	No.	Name		DRC1250	PROGRESSIVE	DRC100	DRC1250 VC	PRGRE VC	DRC100 VC	TWIN	INDEX	HD	(Slave Address)
GE1	00	VPS	VERTICAL POSITION	19	19	19	19	19	19	19	19	19	CXA2170AQ(86H)
	01	VSZ	VERTICAL SIZE	1B	1B	1B	1B	1B	1B	1B	1B	1B	
	02	VZO	V SIZE OFF SET (PJ only)	00	00	00	00	00	00	00	00	00	
	03	VLN	VERTICAL LINEARITY	05	05	05	05	05	05	05	05	05	
	04	VSC	VERTICAL S CORRECTION	08	08	08	08	08	08	08	08	08	
	05	VCN	VERTICAL CENTERING	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	06	VPN	VERTICAL PIN	0F	0F	0F	0F	0F	0F	0F	0F	0F	
	07	MVP	VERTICAL MIDDLE PIN	00	00	00	00	00	00	00	00	00	
					00			00			00		
	08	HTZ	HORIZONTAL TRAPEZOID	0F	0F	0F	0F	0F	0F	0F	0F	0F	
	09	MHZ	MIDDLE HORIZONTAL TRAPEZOID	00	00	00	00	00	00	00	00	00	
	0A	ZOM	ZOOM SW	00	00	00	00	00	00	00	00	00	
	0B	ASP	ASPECT SWITCH	01	01	01	01	01	01	01	01	01	
	0C	VSP	ASPECT RATIO	37	37	34	35	35	32	37	37	36	
	0D	VSR	VERTICAL SCROLL	1D	1D	1D	1D	1D	1D	1D	1D	1D	
	0E	UVL	UPPER VERTICAL LINEARITY	00	00	00	00	00	00	00	00	00	
	0F	LVL	LOWER VERTICAL LINEARITY	00	00	00	00	00	00	00	00	00	
GE2	00	HCT	HORIZONTAL CENTERING	13	13	13	13	13	13	13	13	13	
	01	HPS	HORIZONTAL POSITION	17	17	17	17	17	17	17	17	17	
	02	HSZ	HORIZONTAL SIZE	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	03	SLN	HORIZONTAL S CORRECTION	09	09	09	09	09	09	09	09	09	
	04	MPN	HORIZONTAL MIDDLE PIN	00	00	00	00	00	00	00	00	00	
	05	PIN	HORIZONTAL PIN	01	01	01	01	01	01	01	01	01	
	06	PN0	PIN OFF SET (PJ only)	07	07	07	07	07	07	07	07	07	
	07	UCP	UPPER CORNER PIN	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	08	LCP	LOWER CORNER PIN	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	09	UXG	UPPER EXTRA CORNER PIN GAIN	00	00	00	00	00	00	00	00	00	
	0A	LXG	LOWER EXTRA CORNER PIN GAIN	00	00	00	00	00	00	00	00	00	
	0B	UXP	UPPER EXTRA CORNER PIN POSITION	02	02	02	02	02	02	02	02	02	
	0C	LXP	LOWER EXTRA CORNER PIN POSITION	02	02	02	02	02	02	02	02	02	
	0D	XPL	EXTRA CORNER PIN POLARITY	00	00	00	00	00	00	00	00	00	
	0E	PPH	PIN PHASE	1F	1F	23	1F	1F	23	1F	1F	1F	
	0F	VAG	AFC ANGLE	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	10	LNA	LINEARITY ANGLE	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	11	VBW	AFC BOW	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	12	LBW	LINEARITY BOW	30	30	30	30	30	30	30	30	30	

Category	Item		Function	Standard Data										Device Name
				60 Hz										
	No.	Name		DRC1250	PROGRE	DRC100	DRC1250 VC	PROGRE	DRC100 VC	TWIN	INDEX	HD	MS-MODE	(Slave Address)
GE1	00	VPS	VERTICAL POSITION	19	19	19	19	19	19	19	19	19	19	CXA2170AQ(86H)
	01	VSZ	VERTICAL SIZE	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B	
	02	VZO	V SIZE OFF SET (PJ only)	00	00	00	00	00	00	00	00	00	00	
	03	VLN	VERTICAL LINEARITY	05	05	05	05	05	05	05	05	05	05	
	04	VSC	VERTICAL S CORRECTION	08	08	08	08	08	08	08	08	08	08	
	05	VCN	VERTICAL CENTERING	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	06	VPN	VERTICAL PIN	0F	0F	0F	0F	0F	0F	0F	0F	0F	0F	
	07	MVP	VERTICAL MIDDLE PIN	00	00	00	00	00	00	00	00	00	00	
	08	NSC	ROTATION	00	00	00	00	00	00	00	00	00	00	
	09	HTZ	HORIZONTAL TRAPEZOID	0F	0F	0F	0F	0F	0F	0F	0F	0F	0F	
	0A	MHZ	MIDDLE HORIZONTAL TRAPEZOID	00	00	00	00	00	00	00	00	00	00	
	0B	ZOM	ZOOM SW	00	00	00	00	00	00	00	00	00	00	
	0C	ASP	ASPECT SWITCH	01	01	01	01	01	01	00	00	00	01	
	0D	VSP	ASPECT RATIO	32	32	2F	30	30	2D	26	26	2B	2B	
	0E	VSR	VERTICAL SCROLL	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
	0F	UVL	UPPER VERTICAL LINEARITY	00	00	00	00	00	00	00	00	00	00	
	10	LVL	LOWER VERTICAL LINEARITY	00	00	00	00	00	00	00	00	00	00	
GE2	00	HCT	HORIZONTAL CENTERING	13	13	13	13	13	13	13	13	13	13	
	01	HPS	HORIZONTAL POSITION	17	17	17	17	17	17	17	17	17	17	
	02	HSZ	HORIZONTAL SIZE	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	03	SLN	HORIZONTAL S CORRECTION	09	09	09	09	09	09	09	09	09	09	
	04	MPN	HORIZONTAL MIDDLE PIN	00	00	00	00	00	00	00	00	00	00	
	05	PIN	HORIZONTAL PIN	01	01	01	01	01	01	01	01	01	01	
	06	PN0	PIN OFF SET (PJ only)	07	07	07	07	07	07	07	07	07	07	
	07	UCP	UPPER CORNER PIN	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	08	LCP	LOWER CORNER PIN	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	09	UXG	UPPER EXTRA CORNER PIN GAIN	00	00	00	00	00	00	00	00	00	00	
	0A	LXG	LOWER EXTRA CORNER PIN GAIN	00	00	00	00	00	00	00	00	00	00	
	0B	UXP	UPPER EXTRA CORNER PIN POSITION	02	02	02	02	02	02	02	02	02	02	
	0C	LXP	LOWER EXTRA CORNER PIN POSITION	02	02	02	02	02	02	02	02	02	02	
	0D	XPL	EXTRA CORNER PIN POLARITY	00	00	00	00	00	00	00	00	00	00	
	0E	PPH	PIN PHASE	1F	1F	23	1F	1F	23	1F	1F	1F	1F	
	0F	VAG	AFC ANGLE	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	10	LNA	LINEARITY ANGLE	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	11	VBW	AFC BOW	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	12	LBW	LINEARITY BOW	30	30	30	30	30	30	30	30	30	30	

Category	Item		Function	Standard Data									Device Name
				50 Hz									
	No.	Name		DRC1250	PROGRESSIVE	DRC100	DRC1250 VC	PRGRE VC	DRC100 VC	TWIN	INDEX	HD	(Slave Address)
GE3	00	HBL	HORIZONTAL BLANKING SWITCH	01	01	01	01	01	01	01	01	01	CXA2170AQ(86H)
	01	LBL	LEFT BLANKING	3F	3F	3F	3F	3F	3F	3F	3F	3F	
	02	RBL	RIGHT BLANKING	17	17	17	17	17	17	17	17	17	
	03	VBL	VERTICAL BLANKING SWITCH	01	01	01	01	01	01	01	01	01	
	04	TBL	TOP BLANKING	00	0B	0F	OF	OF	0F	04	04	0F	
	05	BBL	BOTTOM BLANKING	00	0E	0F	0F	0F	0F	08	08	0F	
	06	BLK	BLANKING OFF	00	00	00	00	00	00	00	00	00	
	07	VCM	VERTICAL COMPENSATION	00	00	00	00	00	00	00	00	00	
	08	HCM	HORIZONTAL COMPENSATION	00	00	00	00	00	00	00	00	00	
	09	ACM	AFC COMPENSATION	00	00	00	00	00	00	00	00	00	
	0A	PCM	PIN COMPENSATION	00	00	00	00	00	00	00	00	00	
	0B	AFC	AFC LOOP GAIN	03	03	03	03	03	03	03	03	03	
	0C	JMP	REFERENCE PULSE JUMP SWITCH	00	00	00	01	01	01	00	00	01	
	0D	VSW	VERTICAL DRIVE JUMP SWITCH	01	01	01	01	01	01	01	01	01	
	0E	RST	VERTICAL DRIVE START SWITCH	00	00	00	00	00	00	00	00	00	
	0F	EWD	PIN DC LEVEL SHIFT	00	00	00	00	00	00	00	00	00	
	10	AKT	AKB TIMING	16	16	09	09	09	10	16	16	09	
	11	PPL	PIN COMP POLARITY	00	00	00	00	00	00	00	00	00	
	12	M15	FH=15K @ MS MODE	00	00	00	00	00	00	00	00	00	
	13	HFQ	Fh setting @multi-scan	50	50	50	50	50	50	50	50	50	
	14	HFX	Reciprocal Fh @mult-scan	19	19	19	19	19	19	19	19	19	
	15	VMP	VERTICAL MULTI-SCAN MODE	00	00	00	00	00	00	00	00	00	
	16	ITL	FREERUN INTERLACE SETTING	00	00	00	00	00	00	00	00	00	
	17	VLL	VERTICAL # OF LINE(L)	00	00	00	00	00	00	00	00	00	
	18	VLH	VERTICAL # OF LINE(H)	00	00	00	00	00	00	00	00	00	
	19	AGC	AGC SW for PAL	00	00	00	00	00	00	00	00	00	
GE4	00	DFS	DF SW										
	01	DFH	DF Phase										
	02	QPH	QP Phase										
	03	QAM	DQP AMPLITUDE										
	04	QAV	DQP AMPLITUDE VERTICAL MODULATION										
	05	QAA	DQP AMPLITUDE TILT										
	06	QPC	DQP DC LEVEL	11	11	11	11	11	11	11	11	11	
	07	QPV	DQP DC LEVEL VERTICAL MODULATION	1F	1F	1F	1F	1F	1F	1F	1F	1F	
	08	QPP	DQP DC LEVEL TILT	07	07	07	07	07	07	07	07	07	
	09	QAM	DQP AMPLITUDE	14	14	14	14	14	14	14	14	14	
	0A	QAV	DQP AMPLITUDE VERTICAL MODULATION	3C	3C	3C	3C	3C	3C	3C	3C	3C	
	0B	QAA	DQP AMPLITUDE TILT	07	07	07	07	07	07	07	07	07	
	0C	CPY	COPY FUNCTION (Full to Vcomp/normal)	00	00	00	00	00	00	00	00	00	

Category	Item		Function	Standard Data										Device Name
				60 Hz										
	No.	Name		DRC1250	PROGRE	DRC100	DRC1250 VC	PROGRE	DRC100 VC	TWIN	INDEX	HD	MS-MODE	(Slave Address)
GE3	00	HBL	HORIZONTAL BLANKING SWITCH	01	01	01	01	01	01	01	01	01	01	CXA2170AQ(86H)
	01	LBL	LEFT BLANKING	3F	3F	3F	3F	3F	3F	3F	3F	3F	3F	
	02	RBL	RIGHT BLANKING	17	17	17	17	17	17	17	17	17	17	
	03	VBL	VERTICAL BLANKING SWITCH	01	01	01	01	01	01	01	01	01	01	
	04	TBL	TOP BLANKING	00	06	0A	0C	0C	0F	04	04	0C	04	
	05	BBL	BOTTOM BLANKING	00	08	0E	00	00	0F	06	06	0B	06	
	06	BLK	BLANKING OFF	00	00	00	00	00	00	00	00	00	00	
	07	VCM	VERTICAL COMPENSATION	00	00	00	00	00	00	00	00	00	00	
	08	HCM	HORIZONTAL COMPENSATION	00	00	00	00	00	00	00	00	00	00	
	09	ACM	AFC COMPENSATION	00	00	00	00	00	00	00	00	00	00	
	0A	PCM	PIN COMPENSATION	00	00	00	00	00	00	00	00	00	00	
	0B	AFC	AFC LOOP GAIN	03	03	03	03	03	03	03	03	03	03	
	0C	JMP	REFERENCE PULSE JUMP SWITCH	00	00	00	01	01	01	00	00	01	00	
	0D	VSW	VERTICAL DRIVE JUMP SWITCH	01	01	01	01	01	01	01	01	01	01	
	0E	RST	VERTICAL DRIVE START SWITCH	00	00	00	00	00	00	00	00	00	00	
	0F	EWD	PIN DC LEVEL SHIFT	00	00	00	00	00	00	00	00	00	00	
	10	AKT	AKB TIMING	10	10	09	12	12	10	09	09	09	09	
	11	PPL	PIN COMP POLARITY	00	00	00	00	00	00	00	00	00	00	
	12	M15	FH=15K @ MS MODE	00	00	00	00	00	00	00	00	00	00	
	13	HFQ	Fh setting @multi-scan	50	50	50	50	50	50	50	50	50	50	
	14	HFX	Reciprocal Fh @mult-scan	19	19	19	19	19	19	19	19	19	19	
	15	VMP	VERTICAL MULTI-SCAN MODE	00	00	00	00	00	00	00	00	00	00	
	16	ITL	FREERUN INTERLACE SETTING	00	00	00	00	00	00	00	00	00	00	
	17	VLL	VERTICAL # OF LINE(L)	00	00	00	00	00	00	00	00	00	00	
	18	VLH	VERTICAL # OF LINE(H)	00	00	00	00	00	00	00	00	00	00	
	19	AGC	AGC SW for PAL	00	00	00	00	00	00	00	00	00	00	
GE4	00	DFS	DF SW											
	01	DFH	DF Phase											
	02	QPH	QP Phase											
	03	QAM	DQP AMPLITUDE											
	04	QAV	DQP AMPLITUDE VERTICAL MODULATION											
	05	QAA	DQP AMPLITUDE TILT											
	06	QPC	DQP DC LEVEL	00	00	00	00	00	00	00	00	00	00	
	07	QPV	DQP DC LEVEL VERTICAL MODULATION	00	00	00	00	00	00	00	00	00	00	
	08	QPP	DQP DC LEVEL TILT	00	00	00	00	00	00	00	00	00	00	
	09	QAM	DQP AMPLITUDE	00	00	00	00	00	00	00	00	00	00	
	0A	QAV	DQP AMPLITUDE VERTICAL MODULATION	19	19	19	19	19	19	19	19	19	19	
	0B	QAA	DQP AMPLITUDE TILT	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B	
	0C	CPY	COPY FUNCTION (Full to Vcomp/normal)	00	00	00	00	00	00	00	00	00	00	

Category	Item		Function	NVM Address	Others	YUV			RGB			MS	Device Name
	No.	Name		Common		SD-I	SD-P	HD	SD-I	SD-P	HD		(Slave Address)
WHB	00	YOS	DC Offset Canceller for Y Signal	07									CXA2170AQ(86H)
	01	UOS	DC Offset Canceller for Cb Signal		1F	1F	27	27	1F	27	27	1F	
	02	VOS	DC Offset Canceller for Cr Signal		1F	1F	29	29	1F	29	29	1F	
	03	SBR	Sub Brightness Control	1F									
	04	RDR	R Drive	1F									
	05	GDR	G Drive	17									
	06	BDR	B Drive	1F									
	07	RCT	R Cutoff	1F									
	08	GCT	G Cutoff	1B									
	09	BCT	B Cutoff	1F									
	0A	SBO	Sub Brightness Offset	1F									
	0B	RDO	R Drive Offset	1F									
	0C	GDO	G Drive Offset	1F									
	0D	BDO	B Drive Offset	1F									
	0E	RCO	R Cutoff Offset	1F									
	0F	GCO	G Cutoff Offset	1F									
	10	BCO	B Cutoff Offset	1F									

*YUV, RGB : Component Signal
SD-I : 480i, 576i
SD-P : 480P, 576P
HD : 720P, 1080i (50/60 Hz)

Category	Item		Function	Standard Data																
				Common	50	60	50		60		Input Node Table Group 2								Twin	Index
											YUV			RGB			OTHER	MS		
	No.	Name					TV	VIDEO	TV	VIDEO	SD-I	SD-P	HD	SD-I	SD-P	HD				
SAJ	00	PIC	Picture Control	*1																
	01	BRT	Brightness Control	*1																
	02	COL	Color Control	*1																
	03	HUE	Hue Control	*1																
	04	SHP	Sharpness Control	*1																
	05	VML	VM Level	*1																
	06	DYC	Dynamic Color on/off	*1																
	07	WBS	White Balance Offset Setting	*1																
	08	RYR	Color Matrix Specification		0D	08														
	09	RYB	Color Matrix Specification		0F	09														
	0A	GYR	Color Matrix Specification		07	09														
	0B	GYB	Color Matrix Specification		04	06														
	0C	GMS	Gamma Shape Correction	*1																
	0D	GMR	Gamma Red	*1																
	0E	GMG	Gamma Green	*1																
	0F	GMB	Gamma Blue	*1																
	10	DCT	DC Transmission Control	*1																
	11	APL	Auto Pedestal Level Control	*1																
	12	ABM	ABL Mode Control	*1																
	13	ABT	ABL Current detection Vth Control	*2																
	14	CLO	Color Offset																	
	15	CLW	Color Step Width to the Change of S/N	03																
	16	HUO	Hue Offset																	
	17	SHO	Sharpness Offset																	
	18	SHW	Sharpness Step Width to the Change of S/N	02																
	19	PIO	Picture Offset for TWIN/INDEX																07	07
	1A	BRO	Brightness Offset								0F	06	06	0F	06	06	0F			
	1B	DPL	APED BLACK SIZE INFLECTED SETTING	00																
	1C	TCO	COLOR ON/OFF SETTING	00																

SAJ: Standard Data *1

Category	Item		Function	Standard Data							
				ECO Mode							
				Eco Off				Eco On			
	No.	Name		V-Comp	Twin/Index	WD-N	Other(4:3)	V-Comp	Twin/Index	WD-N	Other(4:3)
SAJ	13	ABT	ABL Current detection Vth Control	53":08/46":0B	53":04/46":07	-	53":04/46":07	53":0B/46":0E	53":08/46":0B	-	53":08/46":0B

SAJ: Standard Data *2

Category	Item		Function	Standard Data			
				Picture Mode			
	No.	Name		Dynamic	Standard	Hi-Fine	Psesonal
SAJ	00	PIC	Picture Control	3F	32	25	80%
	01	BRT	Brightness Control	21	1F	1F	50%
	02	COL	Color Control	53":30 / 43":2D	53":2A / 43":27	53":22 / 43":1F	
	03	HUE	Hue Control	1F	1F	1F	50%
	04	SHP	Sharpness Control	22	1F	1D	50%
	05	VML	VM Level				
	06	DYC	Dynamic Color on/off	01	01	00	01
	07	WBS	White Balance Offset Setting	00	00	00	00
	0C	GMS	Gamma Shape Correction	07	07	00	07
	0D	GMR	Gamma Red	07	03	00	07
	0E	GMG	Gamma Green	07	03	00	03
	0F	GMB	Gamma Blue	07	03	00	03
	10	DCT	DC Transmission Control	06	03	00	03
	11	APL	Auto Pedestal Level Control	01	02	00	02
	12	ABM	ABL Mode Control	02	02	00	02

Category	Item		Function	Data Range	Standard Data
	No.	Name			Common
DCN	00	SHS	DC AMP3		00
	01	YBU	VCA9		00
	02	YBL	VCA10		00
	03	RAP	DC AMP2		00
	04	RUB	VCA5		00
	05	RLB	VCA6		00
	06	LAP	DC AMP1		00
	07	LUB	VCA1		00
	08	LLB	VCA2		00
	09	CAJ	DC AMP4		00
LDG	00	NSC	NS Correction		00
	01	EWC	EW Correction		00
	02	LX	Left Cross Correction		00
	03	RX	Right Cross Correction		00
	04	HST	H Shift Correction		00
	05	ENS	Environmental SW		00
	06	TES	Temperature SW		00
	07	NSS	NS SW		00
	08	EWS	EW SW		00
	09	NSG	NS Correction Gain		00
	0A	EWG	EW Correction Gain		00
	0B	ENG	Environmental Correction Gain		00
	0C	ENS	NS Correction by Environment		00
	0D	TLD	Temp. Corr. DC of Left side		00
	0E	TLU	Temp. Corr. DC of Left side		00
	0F	TLL	Temp.Corr. Gain of Left Upper		00
	10	TRD	Temp. Corr. Gain of Left Lower		00
	11	TRU	Temp. Corr. Gain of Right Upper		00
	12	TRL	Temp. Corr. Gain of Right Lower		00
	13	DHM	DH Mute		00

Category	Item		Function	Standard Data															
				Common	50		60		YUV			RGB			MS	Picture Mode			
	No.	Name			TV	VIDEO	TV	VIDEO	SD-I	SD-P	HD	SD-I	SD-P	HD		Dynamic	Standard	Hi-Fine	Personal
JGL	00	PON	RGB and AKB Reference Pulse Output On/Off	01															
	01	RGB	RGB Output Selection	07															
	02	AGG	Aging Mode Selection	00															
	03	BBT	RGB Bottom Limitter Control	00															
	04	LML	RGB Amplitude Limitter Control	00															
	05	SCO	Sub Picture Control		07	07	07	07	07	07	07	07	07	07	03				
	06	LEV	RGB Level for RGB	05															
	07	SYS	Signal Band Selection		01	01	01	01	01	02	03	01	02	03	03				
	08	SF0	Sharpness f0 setting	01	01	01	01	01	01	01	01	01	01	01	01				
	09	SF1	High f0 sharpness gain control		00	01	00	01	01	01	03	01	01	03	00				
	0A	PRO	Pre/Over-Shoot Ratio Control		03	03	03	03	03	03	03	03	03	03	03				
	0B	LTI	Luminance Transient Improvement													02	02	00	02
	0C	LTM	LTI Mode Setting	01															
	0D	CTI	Chrominance Transient Improvement													01	01	00	01
	0E	VDL	VM OUT Phase Control		08	07	0A	07	07	07	0F	07	07	0F	07				
	0F	VCR	VM OUT Coring Level Setting		00	00	00	00	00	00	00	00	00	00	00				
	10	VFO	VM OUT F0 Setting		02	02	02	02	02	02	02	02	02	02	02				
	11	VLM	VM OUT Limiter Level Setting		03	03	03	03	03	03	00	03	03	00	00				
	12	SPH	H Sync Delay Timing Setting	00															
	13	CLP	CLP Pulse Phase Control	03															
	14	CLG	CLP Pulse Gate Setting	00															
	15	CLS	CLP Pulse Start Phase Setting	00															
	16	YOS	DC_OFFSET RANGE FOR Y SIGNAL SETTING	00															
	17	YLT	Y AMPLITUDE LIMITER LEVEL SETTING	03															
	18	YCS	Y SIGNAL GAIN SETTING		01	01	01	01	01	01	01	01	01	01	00				
	19	PHA	PHASE ADJ	03															
	1A	AKO	AKB_OFF	00															
	1B	HBS	RGB OUTPUT H BLANKING WHEN AKBOFF=0	00															
	1C	ARG	AUTO REGI LRGB_LEV	53":0C / 43":07															

Category	Item		Function	Standard Data										
				Common	2DComb	3DComb	S-Input	others	TV		VIDEO		DVD	
	No.	Name							50TV	60TV	50Video	60Video	50DVD	60DVD
YCT	00	TNT	Tint Adjustment for NTSC						1F	1F	1F	1F		
	01	PNG	PAL/NTSC Gate Width	01										
	02	PNI	PAL/NTSC Sensitivity SW	00										
	03	SCL	Sub Color Control						07	07	07	07		
	04	SCT	Sub Contrast Control						07	07	07	07		
	05	SF0	Sharpness Center Frequency Changing	02										
	06	SEQ	Sharpness Equalizer Characteristic	03										
	07	SHG	Sharpness Gain Control						07	06	05	06	53":07 / 43":05	53":07 / 43":05
	08	YOL	Y-output Level Control	1F										
	09	BSP	Black Stretch Start Point Changing	00										
	0A	COL	Cb/Cr Output Level Control	1A										
	0B	DCR	DC Restoration Ratio Adjustment	00										
	0C	BF0	BPF/TQF F0 Adjustment	00										
	0D	BFQ	BPF/TQF Q Adjustment	02										
	0E	FSW	BPF/TQF Switch	01										
	0F	SDT	SECAM Double Trap Switch	01										
	10	LPF	Y/Cb/Cr LPF Switch	01										
	11	YDL	Y-DL Time Adjustment		06	05	05	03						
	12	B01	Cb Offset1 Adjustment (main route)	0A										
	13	RO1	Cr Offset1 Adjustment	07										
	14	CDF	V Count Down Frequency Switch	00										
	15	CDM	V Count Down Judge Switch	00										
	16	AFC	AFC Sensitivity Switch								00	00	00	00
	17	MVM	Macrovision Mask + AFC Mask	00										
	18	SRY	SECAM R-Y Black Adjustment	07										
	19	SBY	SECAM B-Y Black Adjustment	01										
	1A	BEL	SECAM BELL/HPF Switching	02										
	1B	BLF	BELL f0 Adjustment	00										
	1C	SVI	SECAM V-ID Switch	00										
	1D	SGP	SECAM Gate Position Adjustment	00										
	1E	SID	SECAM Sensitivity Switch	01										
	1F	SIH	SECAM Inhibition Switch	00										
	20	STP	Y Black Level Setup for PAL plus	00										
	21	ASW	AUTO SWITCH	01										
	22	3NR	3D NR Operation on/off	01										
	23	BW6	3D NR for 60Hz non-bust signal on/off	01										
	24	WSH	Sharpness Gain Step for noise reduction	00										
	25	WCO	Cb/Cr Output Level Step for noise reduction	00										

Category	Item		Function	Standard Data									
				Common	S-Input	COLOR MODE			TV		Video		DVD
	No.	Name				SECAM	NTSC	PAL	50	60	50	60	
SYC	00	TNT	Tint Adjustment for NTSC						1F	1F	1F	1F	
	01	PNG	PAL/NTSC Gate Width	01									
	02	PNI	PAL/NTSC Sensitivity SW	00									
	03	SCL	Sub Color Control						07	07	07	07	
	04	SCT	Sub Contrast Control						07	07	07	07	
	05	SF0	Sharpness Center Frequency Changing	02									
	06	SEQ	Sharpness Equalizer Characteristic	03									
	07	SHG	Sharpness Gain Control	07									
	08	YOL	Y-output Level Control	1F									
	09	BSP	Black Stretch Start Point Changing	00									
	0A	COL	Cb/Cr Output Level Control	1F									
	0B	DCR	DC Restoration Ratio Adjustment	00									
	0C	BF0	BPF/TQF F0 Adjustment	01									
	0D	BFQ	BPF/TQF Q Adjustment	02									
	0E	FSW	BPF/TQF Switch	01									
	0F	SDT	SECAM Double Trap Switch	01									
	10	LPF	Y/Cb/Cr LPF Switch	01									
	11	YDL	Y-DL Time Adjustment		05	03	03	03					
	12	NCM	1-H Addition Switch	01									
	13	B01	Cb Offset1 Adjustment (main route)	07									
	14	RO1	Cr Offset1 Adjustment	07									
	15	CDF	V Count Down Frequency Switch	00									
	16	CDM	V Count Down Judge Switch	00									
	17	AFC	AFC Sensitivity Switch								00	00	00
	18	MVM	Macrovision Mask + AFC Mask	00									
	19	SRY	SECAM R-Y Black Adjustment	07									
	1A	SBY	SECAM B-Y Black Adjustment	01									
	1B	BEL	SECAM BELL/HPF Switching	02									
	1C	BLF	BELL f0 Adjustment	00									
	1D	SVI	SECAM V-ID Switch	00									
	1E	SGP	SECAM Gate Position Adjustment	00									
	1F	SID	SECAM Sensitivity Switch	01									
	20	SIH	SECAM Inhibition Switch	00									
	21	STP	Y Black Level Setup for PAL plus	00									
	22	ASW	SUB AUTO SWITCH	01									

Category	Item		Function	Standard Data					
	No.	Name		Common	fh15k	otherfh	DVD	HD	RGB
SYN	00	MAT	Matrix Conversion				00	01	03
	01	VFR	Dummy Sync Freq	01					
	02	SL1	Input Signal Type for IN1	00					
	03	SL2	Input Signal Type for IN2	01					
	04	FSY	Sync Identification Mode				03	03	01
	05	VTC	V sync Separation Time Constant		03	00			
	06	HWD	Output Pulse Width				00	01	
	07	HSL	Sync Separation Mode	01					
	08	HTC	H-Sync Separation Time Constant				01	00	
	09	HSW	YG Out signal Output	00					
	0A	HMA	Hsync within V sync	00					
	0B	MAC	Macrovision	01					
	0C	DUM	Out dummy sync or signal sync	00					
	0D	CLK	Clock Select	00					
	0E	GSL	Gain Select	00					
	0F	CBG	CB Gain	07					
	10	CRG	CR Gain	07					
	11	YG	Y Gain	07					
	12	HFR	Dummy Frequency Select	01					

Table	**Input Siganl**
fh15k	525i, 625i
otherfh	525p, 625p, 1080i/50 Hz, 1080i/60 Hz, 720p/50 Hz, 720p/60 Hz
DVD	525i, 525p, 625i, 625p
HD	1080i/50 Hz, 1080i/60 Hz, 720p/50 Hz, 720p/60 Hz
RGB	Don't care DVD or HD

Category	Item		Function	Standard Data				Device Name
	No.	Name		Common	Dynamic	Drama	Soft	(Slave Address)
AP	00	BBS	Bass Boost Setting	00				BD3886FS
	01	BCB	Boost/Cut Sub-Bass	01				
	02	SBS	Sub-Bass Setting	03				
	03	BCT	Boost/Cut Sub-Treble	01				
	04	STS	Sub-Treble Setting	01				
	05	AGL	AGC Level Setting	00				
	06	BSW	Bass Boost Switch	00				
	07	BAS	Bass sound mode Control (Model : 43")		19	14	01	
			Bass sound mode Control (Model : 53")		17	14	04	
	08	TRE	Treble sound mode Control (Model : 43")		12	00	04	
			Treble sound mode Control (Model : 53")		01	11	03	
	09	BBE	BBE Sound mode Control (Model : 43")		24	23	00	
			BBE Sound mode Control (Model : 53")		2C	17	00	
MSP	00	WST	W/G Stereo Threshold	15				MSP3415D(84H)
	01	WBT	W/G Bilingual Threshold	EC				
	02	WLL	W/G Monaural Threshold	05				
	03	WAC	W/G Agreement Count	01				
	04	WDL	W/G Search Delay	30				
	05	NDL	NICAM Search Delay	20				
	06	SDL	Stereo status Read Delay	10				
	07	AGC	AGC Switch Auto/Constant	01				
	08	REL	AGC Gain at Constant Mode	28				
	09	CRM	Carrier muting on/off	00				
	0A	ACO	Audio Clock out on/off	01				
	0B	FP	FM Prescale for non-M system	1B				
	0C	FPM	FM Prescale for M system	32				
	0D	FH	FM Prescale for HDEV	36				
	0E	FHM	FM Prescale for HDEV and M	65				
	0F	WGP	W/G Prescale	1C				
	10	NIP	NICAM Prescale	7F				
	11	ERR	Auto FM switch Threshold	50				
	12	VOL	Loud Speaker gain 0700h to 07FFh	30				

Category	Item		Function	Standard Data							
	No.	Name		Common	Twin	TV	Video	Dynamic	Standard	Hi-Fine	Personal
LTI	00	LDH	Histogram segment Selection	01							
	01	CFS	Contour Filter Selection	01							
	02	WLB	Letterbox Window Switch	00							
	03	VDC	Video Dependent Coring					01	01	01	01
	04	DEM	Demonstration Mode	00							
	05	CDP	Luminance Delay	04							
	06	OSP	Overrule Smart Peaking	00							
	07	WPO	White Point Stretch Off	00							
	08	DSK	Skin Tone Switch					00	00	00	00
	09	ASK	Skin Tone Angle Selection	00							
	0A	WSK	Skin Tone Width Selection	00							
	0B	SSK	Skin Tone Size selection	00							
	0C	DGR	Green Enhancement switch		00			01	01	00	01
	0D	DGT	Threshold of Green Enhancement switch	07							
	0E	GGR	Green Enhancement Gain	00							
	0F	WGR	Green Enhancement Width	00							
	10	SGR	Green Enhancement Size	00							
	11	DBL	Blue Stretch Switch	00							
	12	GBL	Blue Stretch Gain Selection	00							
	13	SBL	Blue Stretch Size selection	00							
	14	CDS	Color Dependent Sharpness					01	01	01	01
	15	CST	Threshold of Color Dependent Sharpness	07							
	16	CTI	Color Transient Improvement					00	00	00	00
	17	BON	Black offset Compensation					00	00	00	00
	18	BTD	Adaptive Black Strecth					00	00	00	00
	19	NLD	Non-Linearity Amplifier		00			1D	13	05	13
	1A	NLW	Step Width of Non-Linearity Amplifier	04							
	1B	VGD	Variable Gamma		1F			22	15	1A	15
	1C	VGW	Step Width of Variable Gamma	00							
	1D	PKD	Peaking Amplitude					32	32	1D	32
	1E	PKW	Step Width of Peaking Amplitude	08							
	1F	SPD	Steepness Correction					00	00	00	00
	20	CRD	Coring Level					1B	1B	0F	1B
	21	CRW	Step Width of Coring Level	09							
	22	CRO	Coring Level Offset for Video Mode	09							
	23	LWD	Line Width Correction	1F							
	24	SNM	S/N Mode under unreliable S/N condition	01							
	25	SNC	S/N Ratio Average Counter			03	03				
	26	FMC	Feature Mode Matching Counter	02							

Category	Functionality		Function	Standard Data
	No.	Name		
MD1	00	HAP	H active Display area phase	*1
	01	VAP	V active Display area phase	*1
	02	HAS	h active display area size	*1
	03	VAS	v active display area size	*1
	04	HPW	display h pulse width	*1
	05	VPW	display v pulse width	*1
	06	YCD	display output yc signal delay correct	*2
	07	YSD	display output ys signal delay correct	*3
	08	MHP	main display picture h position	*4
	09	MVP	main display picture v position	*5
	0A	MHS	main display picture h size	*4
	0B	MVS	main display picture v size	*5
	0C	MPH	multi picture mode h position	*6
	0D	MPV	multi picture mode v position	*6
	0E	SHP	sub display picture h position	A7
	0F	SVP	sub display picture v position	05
	10	SHS	sub display picture h size	73
	11	SVS	sub display picture v size	4F
	12	PHP	PinP Large mode h position	00
	13	PVP	PinP Large mode v position	00
	14	PHZ	PinP Large mode h size	00
	15	PVZ	PinP Large mode v size	00
	16	DPS	display pll switch	*7
	17	MDS	model select	*8
	18	BCL	background Color y	*9
	19	YST	Display output ys signal type select	1
MD2	00	HAP	DRC H-Active Area Position	*1
	01	HAS	DRC H-Active Area Size	*1
	02	VAP	DRC V-Active Area Position	*1
	03	VAS	DRC V-Active Area Size	*1

MD1: Standard Data *1

Item		Standard Data			
No.	Name	Other	1152i/576p / 1080i/50Hz	480i/120Hz	576i/100Hz
00	HAP	69	69	69	69
01	VAP	14	3F	F	22
02	HAS	F0	F0	F0	F0
03	VAS	87	90	87	90
04	HPW	36	36	36	36
05	VPW	05	05	03	03

MD1: Standard Data *2

Item		Standard Data			
No.	Name	480i/576i	Others	Twin	Scroll / Index
06	YCD	0	0	0	0

MD1: Standard Data *3

Item		Standard Data			
No.	Name	Table 0 (1920dots)	Table 1 (1920dots)	Table 2 (1920dots)	Table 3 (1920dots)
07	DYSD	3	3	3	3

MD1: Standard Data *4

Item		Standard Data		
No.	Name	4:3Model	16:9Model	
		All	Normal	Others
08	MHP	00	98	00
0A	MHS	F0	A2	F0

MD1: Standard Data *5

Item		Standard Data										
No.	Name	Single							Single(V Comp)			
		60Hz		120Hz	50Hz			100Hz	60Hz	120Hz	50Hz	100Hz
		960i/480p	1080i/540p	480i	1152i/576p	1080i (4:3 Model)	1080i (16:9Model)	576i	960i/480p	480i	1152i/576p	576i
09	MVP	1E	0	0F	0	27	0E	0	23	12	6	3
0B	MVS	78	87	3C	90	7B	87	48	6E	37	84	42

MD1: Standard Data *6

Item		Standard Data					
No.	Name	60Hz	50Hz	60Hz		50Hz	
		TWIN	Twin	Index (4:3 Model)	Scroll (16:9Model)	Index (4:3 Model)	Scroll (16:9Model)
0C	MPH	1C	1C	3C	1F	3D	20
0D	MPV	C	6	3E	1E	22	24

MD1: Standard Data *7

Item		Standard Data	
No.	Name	1080i	other
16	DPS	0	0

MD1: Standard Data *8

Item		Standard Data	
No.	Name	4:3 Model	16:9 Model
17	MDS	8	9

MD1: Standard Data *9

Item		Standard Data								
No.	Name	TV / 4:3Model			PJ / 4:3Model			PJ / 16:9Model		
		Single	MS	Others	Single	MS	Others	Single	MS	Others
18	BCL	0	0	0	0	0	5	5	0	5

MD2: Standard Data *1

Item		Standard Data											
No.	Name	Normal (16:9Model)				V comp (4:3Model)				other			
		60Hz		50Hz		60Hz		50Hz		60Hz		50Hz	
		RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr
00	HAP	A1	A0	B2	B1	84	83	95	94	84	83	95	94
01	HAS	A2	A2	9F	9F	B2	B2	AF	AF	B2	B2	AF	AF
02	VAP	24	24	30	30	29	29	35	35	24	24	30	30
03	VAS	78	78	90	90	6E	6E	84	84	78	78	90	90

Item		Standard Data							
No.	Name	Twin - Left				Scroll / Index -Main			
		60Hz		50Hz		60Hz		50Hz	
		RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr	RF,CV,S-Video	YPbPr
00	HAP	95	95	A1	A0	A1	A0	B1	B0
01	HAS	A5	A5	A3	A3	A2	A2	A0	A0
02	VAP	38	38	3F	3F	36	36	3F	3F
03	VAS	6E	6E	86	86	6F	6F	86	86

Category	Functionality		Function	Standard Data
	No.	Name		
MD3	00	HAP	VDO H-Active Area Position	*1
	01	HAS	VDO-H active Area pixel size	*1
	02	VEP	VDO-V active even position	*1
	03	VLS	VDO-V active area line size	*1
	04	VOP	VDO-V active odd position	*2
	05	CLM	VDO-Clamp pulse output timing	*2
	06	CPW	VDO-Clamp pulse width	*2
	07	YCD	VDO-Analog input yc delay correct	*2
	08	PSP	VDO-external pll pd stop line count	08
	09	PST	VDO-external pll pd start line count	8B
	0A	HSC	VDO-H sync cycle	00
	0B	REV	VDO-Field reverse	82
MD4	00	HAP	DTV H active area position	70
	01	HAS	DTV H active area size	F0
	02	VLP	DTV V active area line position	13
	03	VLS	DTV V active area line size	87
	04	CPT	DTV Clamp pulse output timing	50
	05	CPW	DTV Clamp pulse width	04
	06	YCD	DTV analof input yc correct	00
	07	PSP	DTV external pll pd stop line count	00
	08	PST	DTV external pll pd start line count	00

MD3: Standard Data *1

Item		Standard Data															
No.	Name	Normal (16:9Model)		V comp (4:3Model)		Other								Scroll / Index -Sub		Twin - Right	
		480p / 60Hz	576p / 50Hz	480p / 60Hz	576p / 50Hz	60Hz			50Hz					60Hz	50Hz	60Hz	50Hz
						480p	1080i	720p	576p	1080i (4:3 Model)	1080i (16:9Model)	720p (4:3 Model)	720p (16:9Model)	TV, CV, S-Video			
00	HAP	BE	CB	9C	AA	9C	6E	8B	AA	6E	6E	8B	8B	96	A7	9C	AA
01	HAS	DD	DD	F0	F0	F0	F0	1	F0	F0	F0	A1	A1	A5	A2	A7	A5
02	VEP	25	2F	2A	34	25	15	1B	2A	15	15	35	27	1B	1E	1A	1E
03	VLS	78	90	6E	84	78	87	B4	7B	87	87	A4	B4	37	43	37	43

MD3: Standard Data *2

Item		Standard Data							
No.	Name	60Hz				50Hz			
		480i (RF,CV,S-Video)	480p	1080I	720p	576i (RF,CV,S-Video)	576p	1080i	720p
04	VOP	1	0	0	0	0	0	0	0
05	CLM	42	7A	48	42	4C	7B	48	58
06	CPW	2	3	3	3	2	3	3	3
07	YCD	0	0	0	0	0	0	0	0

MD3: Standard Data *3

Item		Standard Data							
No.	Name	60Hz				50Hz			
		480i (RF,CV,S-Video)	480p	1080I	720p	576i (RF,CV,S-Video)	576p	1080i	720p
08	PSP	3E	81	8B	BA	4D	9B	8B	BA
09	PST	0	0	0	0	0	0	0	0

Category	Functionality		Function	Standard Data
	No.	Name		
MD5	00	POP	Service Data Effect	*1
	01	MHY	Main H LPF Y Coefficient Code	*1
	02	MHC	Main H LPF C Coefficient Code	*1
	03	MVY	Main V LPF Y Coefficient Code	*1
	04	MVC	Main V LPF C Coefficient Code	*1
	05	MHR	Main h enhance y coring code	*1
	06	MHL	Main h enhance y cliping code	*1
	07	MHE	Main h enhance y level code	*1
	08	MHO	Main h enhance y coefficient code	*1
	09	MCR	Main h enhance c coring code	*1
	0A	MCL	Main h enhance c cliping code	*1
	0B	MCE	Main h enhance c level code	*1
	0C	MC0	Main h enhance c coefficient code	*1
	0D	MYR	Main V enhance y coring code	*1
	0E	MYL	Main v enhance y cliping code	*1
	0F	MYE	Main v enhance y level code	*1
	10	MVR	Main V enhance c coring code	*1
	11	MVL	Main V enhance c cliping code	*1
	12	MVE	Main V enhance c level code	*1
	13	SHY	sub h LPF y coefficient Code	00
	14	SHC	sub h LPF c coefficient Code	00
	15	SVY	sub v LPF y coefficient Code	00
	16	SVC	sub v LPF c coefficient Code	00
	17	SHR	sub h enhance y coring code	00
	18	SHL	sub h enhance y cliping code	00
	19	SHE	sub h enhance y level code	00
	1A	SHO	sub h enhance y coefficient code	00
	1B	SCR	sub h enhance c coring code	00
	1C	SCL	sub h enhance c cliping code	00
	1D	SCE	sub h enhance c level code	00
	1E	SC0	sub h enhance c coefficient code	00
	1F	SYR	Sub V enhance y coring code	00
	20	SYL	sub v enhance y cliping code	00
	21	SYE	sub v enhance y level code	00
	22	SVR	Sub V enhance c coring code	00
	23	SVL	Sub V enhance c cliping code	00
	24	SVE	Sub V enhance c level code	00

MD5: Standard Data *1

Item		Standard Data															
No.	Name	POP=00	POP=01	POP=02	POP=03	POP=04	POP=05	POP=06	POP=07	POP=08	POP=09	POP=0A	POP=0B	POP=0C	POP=0D	POP=0E	POP=0F
		576i RF/Composite				480i RF/Composite				576i RF/Composite Normal Mode (Wide model only)				480i Component Normal mode (Wide model only)			
		Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal
01	MHY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
02	MHC	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
03	MVY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	MVC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05	MHR	2	1	0	1	2	1	0	1	2	1	1	1	2	1	1	1
06	MHL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
07	MHE	5	3	0	3	5	3	0	3	5	3	5	5	5	3	5	5
08	MHO	53":1 / 43":0	0	0	0	53":1 / 43":0	0	0	0	0	0	1	0	0	0	1	0
09	MCR	2	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2
0A	MCL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
0B	MCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0C	MCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0D	MYR	2	1	0	1	2	1	0	1	2	1	1	1	2	1	0	0
0E	MYL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
0F	MYE	53":3 / 43":1	1	0	1	53":3 / 43":1	1	0	1	1	1	3	2	1	1	3	2
10	MVR	2	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2
11	MVL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
12	MVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MD5: Standard Data *2

Item		Standard Data															
No.	Name	POP=10	POP=11	POP=12	POP=13	POP=14	POP=15	POP=16	POP=17	POP=18	POP=19	POP=1A	POP=1B	POP=1C	POP=1D	POP=1E	POP=1F
		576i Component				480i Component				576i Composite Normal Mode (Wide model only)				480i RF/Composite Normal Mode (Wide model only)			
		Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal
01	MHY	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1
02	MHC	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
03	MVY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	MVC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05	MHR	2	1	0	1	2	1	0	1	2	1	1	1	2	1	1	1
06	MHL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
07	MHE	5	3	0	3	5	3	0	3	5	3	7	5	5	3	7	5
08	MHO	53":1 / 43":0	0	1	0	53":1 / 43":0	0	1	0	0	0	1	1	0	0	1	1
09	MCR	2	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2
0A	MCL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
0B	MCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0C	MCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0D	MYR	2	1	0	1	2	1	0	1	2	1	1	1	2	1	1	1
0E	MYL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
0F	MYE	53":5 / 43":3	1	0	1	53":5 / 43":3	1	0	1	1	1	3	2	1	1	3	2
10	MVR	2	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2
11	MVL	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
12	MVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MD5: Standard Data *3

Item		Standard Data															
No.	Name	POP=20	POP=21	POP=22	POP=23	POP=24	POP=25	POP=26	POP=27	POP=28	POP=29	POP=2A	POP=2B	POP=2C	POP=2D	POP=2E	POP=2F
		576i 100 Hz (for All Input)				480i 120 Hz (for All Input)				576p				480p			
		Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal
01	MHY	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1
02	MHC	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
03	MVY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	MVC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05	MHR	2	1	0	1	2	1	0	1	3	2	0	2	3	2	0	2
06	MHL	1	1	0	1	1	1	0	1	1	2	0	2	1	2	0	2
07	MHE	5	3	0	3	5	3	0	3	4	4	0	4	4	4	0	4
08	MHO	1/0	0	0	0	1/0	0	0	0	1	1	1	1	1	1	1	1
09	MCR	2	2	0	2	2	2	0	2	2	0	0	0	2	0	0	0
0A	MCL	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0
0B	MCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0C	MCO	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
0D	MYR	2	1	0	1	2	1	0	1	2	2	0	2	2	2	0	2
0E	MYL	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1
0F	MYE	3/1	1	0	1	3/1	1	0	1	3	3	0	3	3	3	0	3
10	MVR	2	2	0	2	2	2	0	2	0	0	0	0	0	0	0	0
11	MVL	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0
12	MVE	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1

MD5: Standard Data *4

Item		Standard Data															
No.	Name	POP=30	POP=31	POP=32	POP=33	POP=34	POP=35	POP=36	POP=37	POP=38	POP=39	POP=3A	POP=3B	POP=3C	POP=3D	POP=3E	POP=3F
		1080i 50/60Hz				720p 50/60Hz				P&P / Index / Scroll				Memory Stick			
		Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal	Dynamic	Standard	Hi-Fine	Personal
01	MHY	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
02	MHC	2	2	2	2	2	2	2	2	0	0	0	0	3	3	3	3
03	MVY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	MVC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05	MHR	2	2	0	2	2	2	0	2	0	0	0	0	1	1	1	1
06	MHL	1	1	0	1	1	1	0	1	0	0	0	0	1	1	1	1
07	MHE	5/2	1	0	1	2	1	0	1	0	0	0	0	4	2	5	3
08	MHO	0	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1
09	MCR	3	2	0	2	3	2	0	2	0	0	0	0	2	2	2	2
0A	MCL	2	2	0	2	2	2	0	2	0	0	0	0	1	1	1	1
0B	MCE	2	2	0	2	2	2	0	2	0	0	0	0	0	0	0	0
0C	MCO	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
0D	MYR	2	2	0	2	2	2	0	2	0	0	0	0	2	1	1	1
0E	MYL	1	1	0	1	1	1	0	1	0	0	0	0	1	1	1	1
0F	MYE	7	3	1	3	3	3	1	3	0	0	0	0	1	1	3	2
10	MVR	3	2	0	2	3	2	0	3	0	0	0	0	2	2	2	2
11	MVL	1	1	0	1	1	1	0	1	0	0	0	0	1	1	1	1
12	MVE	3	2	0	2	3	2	0	3	0	0	0	0	0	0	0	0

Category	Functionality		Function	Standard Data
	No.	Name		
MD6	00	MCT	Main Cut Out on	0
	01	MWH	Main Write H size	
	02	MWV	Main Write V size	
	03	MHP	Main Read H position	
	04	MVP	Main Read V Position	
	05	MHS	Main Read H Size	
	06	MVS	Main Read V Size	
MD7	00	MCN	Main Contrast	*1
	01	SCR	Sub Contrast R	*1
	02	SCG	Sub Contrast G	*1
	03	SCB	Sub Contrast B	*1
	04	RGB	RGB OUT Select	*1

MD6: Standard Data *1

Item		Standard Data	
No.	Name	VDO 480i/576i	other
00	MCON	31	27
01	SCOR	128	128
02	SCOG	128	147
03	SCOB	128	147
04	RGB	0	0

Category	Item		Function	Standard Data											
				Common	50	60	NTSC				OTHER COLOR SYSTEM			
	No.	Name					NR0	NR1	NR2	NR3	NR0	NR1	NR2	NR3
3NR	00	WHC	PLL Divider setting(PAL=47, NTSC=44)		2F	2C								
	01	NIQ	U/V input polarity	01										
	02	CLW	A/D Clamp Pulse width		1E	1E								
	03	CLP	A/D Clamp Pulse Phase		10	10								
	04	YBW	Y H Blanking width		8A	8A								
	05	YBL	Y Blanking level adjustment	00										
	06	YBO	Internal Y H Blanking ON/OFF	00										
	07	MUT	Signal Output Muting	00										
	08	YBS	Y H Blanking start point		28	28								
	09	CBW	U/V H Blanking width		8A	8A								
	0A	CBS	U/V H Blanking start point		28	28								
	0B	CBO	Internal U/V H Blanking ON/OFF	00										
	0C	VBL	V H Blanking level adjustment	00										
	0D	UBL	U H Blanking level adjustment	00										
	0E	CDL	U/V output delay		00	00								
	0F	YDL	Y output delay		00	00								
	10	PVI	VD input polarity	00										
	11	PHI	HD input polarity	00										
	12	HDW	HD pulse width	10										
	13	PVO	VD output polarity	00										
	14	PHO	HD output polarity	00										
	15	HST	HD out pulse start position	36										
	16	VDL	VD out Pulse start position	00										
	17	VDW	VD out Pulse width	03										
	18	NDE	Noise detection point	00										
	19	NVP	Noise detect line	02										
	1A	NDS	Noise detect sencitivity	03										
	1B	HOF	H Reference pulse ON/OFF (ON=0)	01										
	1C	NDW	Noise detect gate width	09										
	1D	UOS	U Offset level	00										
	1E	POT	Output Port 0/1 Control		00	01								
	1F	UVF	UV Frag polarity	00										

Category	Item		Function	Standard Data											
				Common	50	60	NTSC				OTHER COLOR SYSTEM			
	No.	Name					NR0	NR1	NR2	NR3	NR0	NR1	NR2	NR3
3NR	20	APC	AP Clock polarity	01										
	21	DAP	DAC power save (ON=1)	00										
	22	YLV	Y NR level				00	08	0C	0E	04	08	0C	0E
	23	YST	Y Standard detection off/on	00										
	24	YNT	Y NTSC Standard detection	01										
	25	YPL	Y PAL Standard detection	01										
	26	YMV	Y Moving detection filter (ON=0)	00										
	27	YCR	Y Moving detection Coring level				00	00	07	0A	00	00	07	0A
	28	VOS	V Offset level	00										
	29	YMG	Y Moving detection gain				00	00	00	00	00	00	00	00
	2A	YEG	Y Moving detect on (ON=1)	01										
	2B	YEL	Y edge moving detection sensitivity				03	04	03	03	03	04	03	03
	2C	YLM	Y NR Feed back limit level				00	03	04	08	02	03	04	08
	2D	CLV	C NR level				00	08	09	0B	04	08	09	0B
	2E	CNT	Relate C NR to YSTDN	01										
	2F	CPL	Relate C NR to YSTDP	01										
	30	CMG	C Moving detection gain				00	00	00	00	00	00	00	00
	31	CCR	C Moving detection level				00	00	06	0C	00	00	06	0C
	32	CLM	C NR Feed back limit level				00	04	05	05	00	04	05	05
	33	NVS	NR Vertical start line		14	14								
	34	NHS	NR Horizontal start position		10	10								
	35	NVE	NR Vertical end line (offset:+100d)		D2	A0								
	36	NHE	NR Horizontal end position		78	78								
	37	YNG	Y Coring gain		01	01								
	38	COR	Coring/through (Coring=0)		00	00								
	39	LPF	LPF on/off (on=0)	00										
	3A	YLT	Y Coring limit level		00	00								
	3B	YNC	Y Coring offset level				00	08	0C	0E	04	08	0C	0E
	3C	YCO	Y Coring off (on=1)		01	01								

Category	Item		Function	Standard Data											
				Common	TV	Video	NR Mode				Picture Morde			
	No.	Name					NRmode0	NRmode1	NRmode2	NRmode3	Dynamic	Standard	Hi-Fine	Personal
3CM	00	NRM	Noise Reduction Operation Mode	00										
	01	YCO	Y/C Signal Output Selection	0D										
	02	SYC	System Clock Selection	01										
	03	STD	Standard/Non-standard Operation Selection	00										
	04	MSS	Inter-frame/Inter-line Operation Selection	00										
	05	KIL	Killer/Non-killer Operation Selection	00										
	06	ECS	External C-sync Input Selection	01										
	07	CPP	ADC Input Level & Clump Pulse Width Selection	00										
	08	HDP	Horizontal Phase Adjustment	05										
	09	CDL	C-signal delay Adjustment	04										
	0A	DYC	DY Detection Coring Level Adjustment				02	02	02	04				
	0B	DYG	DY Detection Gain Adjustment				0A	0A	0A	0A				
	0C	DCC	DC Detection Coring Level Adjustment				05	03	03	05				
	0D	DCG	DC Detection Gain Adjustment				05	0A	0A	05				
	0E	YNR	YNR Non-linear Filter Setup	01										
	0F	CNR	CNR Non-linear Filter Setup	01										
	10	WSC	Noise Detectin Coring Adjustment	01										
	11	VTH	Hysteresis Selection for H-sync Non-standard		01	01								
	12	VTR	Sensitivity Selection for H-sync Non-standard		01	01								
	13	LDR	Sensitivity Selection for Frame-sync Non-standard		02	01								
	14	VAP	Gain Adjustment for Vertical Shape Correction								00	00	00	00
	15	VAI	Vanishing Adjustment for Vertical Shape Correction								00	00	00	00
	16	YPF	Center Frequency Selection for Y-peaking BPF								03	03	03	03
	17	YPG	Gain Adjustment for Y-peaking BPF								0A	08	08	08
	18	VSE	Line Comb Filter Setup	02										
	19	CCN	C-signal Split Filter Switch	00										
	1A	COS	C-signal Delay Switch at Noise Reduction	00										
	1B	SDC	DC Detection Sensitivity Switch	00										
	1C	SDY	DY Detection Lower-level Sensitivity Switch	01										
	1D	YHC	Y-signal Higher-level Coring Selection								00	00	00	00
	1E	YHG	Y-signal Higher-level Gain Switch								00	00	00	00
	1F	SHT	Non-standard Detection & H/V Counter Test Bits	00										
	20	CLK	Clock Test Bits	08										
	21	PLL	PLL Filter Setup	0D										
	22	KRF	Killer Detection Reference Adjustment	03										
	23	HSL	H-sync Slice Level Adjustment	0C										
	24	VSL	V-sync Slice Level Adjustment	08										
	25	BPS	Internal Burst Gate Start Position Adjustment	04										
	26	BPW	Internal Burst Gate Width Adjustment	0A										
	27	ADC	ADC Clock Delay Selection	03										
	28	APD	ADC Power-down Switch	01										
	29	SPD	Memory Power-down Switch	00										

Category	Item		Function	Standard Data									Device Name
				Common	50 Hz				60 Hz				
	No.	Name			DRC100	DRC1250	Progressive	HD1080i	DRC100	DRC1250	Progressive	HD1080i	(Slave Address)
2CM	00	FUN	Function	03									TC90A69 (B2H)
	01	YCM	Y/C separator	00									
	02	CNR	CNR K	00									
	03	LIM	CNR limit	00									
	04	CPF	C-LPF	00									
	05	SLP	SelC-LPF	00									
	06	YFO	Y-P fo	00									
	07	YPG	Y-EQ Gain	00									
	08	YPL	Y-EQ/ N.C Limit	00									
	09	CLP	Pds.Clip	00									
	0A	YPF	Y-LPF	00									
	0B	VEG	V-Emph gain	03									
	0C	VEN	V-Emph N.L	03									
	0D	VEC	V-Emph Core	01									
TXT	00	TXH	Teletext Horizontal Display Position	29									SAA5264(58H)
	01	TXV	Teletext Vertical Display Position	27									
	02	THD	Teletext H-sync Active Edge Shift	00									
	03	TVD	Teletext V-sync Active Edge Shift	00									
	04	HPL	Teletext H-sync Polarity Configuration	01									
	05	VPL	Teletext V-sync Polarity Configuration	00									
	06	FPL	Teletext V-sync Polarity Configuration	01									
	07	FMD	Teletext Fastext/TOP Force Mode	02									
	08	TBR	Teletext RGB Brightness	03									
	09	NOP	Teletext National Option Table Configuration	01(M31/M61)									
				02(M91)									
	0A	TCH	Teletext Twisted Character Set Configuration	01(M31/M61)									
				02(M91)									
OSD	00	OSH	OSD H Position	0D									CXP961F064(60H)
	01	OSV	OSD V Position		25	3F	3F	3D	1B	30	30	30	
	02	FW1	OSD ODD/EVEN Field Window Setup #1	07									
	03	FW2	OSD ODD/EVEN Field Window Setup #2	14									
	04	OHO	OSD H Position Offset for INDEX	04									

Category : PJE

ITEM No.	ITEM Name	Contents	min	max	625(100Hz)				625(50Hz)				1125(50Hz)		1125(60Hz)		525(120Hz)				525(60Hz)			
					Full	Zoom	Vcomp	Widezoom	Full	Zoom	Vcomp	Widezoom	Full	Vcomp	Full	Vcomp	Full	Zoom	Vcomp	Widezoom	Full	Zoom	Vcomp	Widezoom
0	FDIS	Switch of display for fine adjustment data	0	1	1																			
1	AREA	Area setting	0	2	0																			
2	COPY	Service copy adjustment	0	1	0																			
3	ALCP	Service all copy adjustment	0	1	0																			
4	OSDH	Osd horizontal position of PJED service menu	1	255	11																			
5	OSDV	Osd vertical position of PJED service menu	1	255	28	56	34	45	1	1	1	1	1	1	15	28	17	42	21	28	57	106	65	78
6	FVSL	Start position of fine adjustment	0	15	15	14	1	15	15	14	1	15	15	1	0	1	15	14	1	15	0	14	1	15
7	FVSP	Start line of fine adjustment	0	255	31	9	7	1	64	20	16	4	64	16	53	73	29	9	11	11	3	21	25	25
8	V1DL	Value of V1 delay	0	255	8	88	8	58	17	175	17	116	17	17	1	1	1	72	1	32	1	140	1	61
9	V1CU	Value of V1 count up	0	4095	763	998	577	895	387	506	292	454	387	292	387	292	895	1179	665	998	454	598	337	506
10	V1OH	Value of V1 offset upper data	0	255	7	7	130	7	5	5	128	5	5	128	79	184	7	7	135	7	5	5	134	5
11	COHP	Horizontal phase for rough adjustment	0	4095	0																			
12	FIHP	Horizontal phase for fine adjustment	0	4095	1111																			
13	TPHP	Horizontal phase for test pattern	0	4095	72																			
14	TPVP	Vertical phase for test pattern	0	255	38	70	39	58	72	136	74	112	72	74	15	17	30	58	29	42	55	111	53	79
15	DFHP	Horizontal phase for dynamic focus(4:3)	0	4095	250																			
16	DFHG	Horizontal parabola wave for dynamic focus(4:3)	-128	127	-70	-65	-70	-65	-70	-65	-70	-65	-65	-70	-70	-70	-70	-65	-70	-65	-70	-65	-70	-65
17	DFVG	Vertical parabola wave for dynamic focus(4:3)	-128	127	-90	-90	-128	-90	-90	-90	-128	-90	-90	-128	-128	-128	-90	-90	-128	-90	-90	-90	-128	-90
18	DFDC	Center for dynamic focus	-128	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127
19	DFV1	V1 saw wave for dynamic focus	-128	127	-60	-50	-60	-50	-20	-50	-20	-50	-50	-40	-40	-40	-90	-50	-90	-50	-40	-50	-40	-50
20	SDHP	Compensation of horizontal phase for shading	0	4095	500																			
21	SDH1	Horizontal saw wave for shading(4:3)	-128	127	63	127	127	127	63	127	127	127	63	127	63	127	63	127	127	127	63	127	127	127
22	BDVU	Vartical positioni for boder line 1	0	2047	6	4	4	0	11	9	7	0	45	41	45	41	10	8	12	3	20	15	24	6
23	BDVL	Vartical positioni for boder line 2	0	2047	538	412	536	464	1077	823	1073	928	1044	1040	1044	1040	454	344	456	413	908	689	912	826
24	BDHL	Horizontal position for boder line 1	0	2047	152	152	152	145	152	152	152	145	152	152	152	152	152	152	152	145	152	152	152	145
25	BDHR	Horizontal position for boder line 2	0	2047	1254	1254	1254	1261	1254	1254	1254	1261	1254	1254	1254	1254	1254	1254	1254	1261	1254	1254	1254	1261
26	HBLD	Horizontal phase for output of H.Blank out	0	4095	32																			
27	HBLW	Width for output of H.Blank out	0	4095	143																			
28	PWM2	PWM2 output width setting of Regi IC	0	4095	43": 500/ 53": 345																			
29	R0GH	Green Horizontal Sensor 0 Ratio Offset	-128	127	0										0									
30	R0RH	Red Horizontal Sensor 0 Ratio Offset	-128	127	0										0									
31	R0BH	Blue Horizontal Sensor 0 Ratio Offset	-128	127	0										0									
32	R1GH	Green Horizontal Sensor 1 Ratio Offset	-128	127	0										0									
33	R1RH	Red Horizontal Sensor 1 Ratio Offset	-128	127	0										0									
34	R1BH	Blue Horizontal Sensor 1 Ratio Offset	-128	127	0										0									
35	R1GV	Green Vertical Sensor 1 Ratio Offset	-128	127	0										0									
36	R1RV	Red Vertical Sensor 1 Ratio Offset	-128	127	0										0									
37	R1BV	Blue Vertical Sensor 1 Ratio Offset	-128	127	0										0									
38	R2GH	Green Horizontal Sensor 2 Ratio Offset	-128	127	0										0									
39	R2RH	Red Horizontal Sensor 2 Ratio Offset	-128	127	0										0									
40	R2BH	Blue Horizontal Sensor 2 Ratio Offset	-128	127	0										0									
41	R2GV	Green Vertical Sensor 2 Ratio Offset	-128	127	0										0									
42	R2RV	Red Vertical Sensor 2 Ratio Offset	-128	127	0										0									
43	R2BV	Blue Vertical Sensor 2 Ratio Offset	-128	127	0										0									
44	R3GH	Green Horizontal Sensor 3 Ratio Offset	-128	127	0										0									
45	R3RH	Red Horizontal Sensor 3 Ratio Offset	-128	127	0										0									

ITEM No.	ITEM Name	Contents	min	max	625(100Hz)				625(50Hz)				1125(50Hz)		1125(60Hz)		525(120Hz)				525(60Hz)			
					Full	Zoom	Vcomp	Widezoom	Full	Zoom	Vcomp	Widezoom	Full	Vcomp	Full	Vcomp	Full	Zoom	Vcomp	Widezoom	Full	Zoom	Vcomp	Widezoom
46	R3BH	Blue Horizontal Sensor 3 Ratio Offset	-128	127	0										0									
47	PTRH	Red Horizontal Top Pattern Position Offset	-128	127	0										0									
48	PTBH	Blue Horizontal Top Pattern Position Offset	-128	127	0										0									
49	PLRH	Red Horizontal Left Pattern Position Offset	-128	127	0										0									
50	PLBH	Blue Horizontal Left Pattern Position Offset	-128	127	0										0									
51	PLRV	Red Vertical Left Pattern Position Offset	-128	127	0										0									
52	PLBV	Blue Vertical Left Pattern Position Offset	-128	127	0										0									
53	PRRH	Red Horizontal Right Pattern Position Offset	-128	127	0										0									
54	PRBH	Blue Horizontal Right Pattern Position Offset	-128	127	0										0									
55	PRGV	Green Vertical Right Pattern Position Offset	-128	127	0										0									
56	PRRV	Red Vertical Right Pattern Position Offset	-128	127	0										0									
57	PRBV	Blue Vertical Right Pattern Position Offset	-128	127	0										0									
58	PBGH	Green Horizontal Bottom Pattern Position Offset	-128	127	0										0									
59	PBRH	Red Horizontal Bottom Pattern Position Offset	-128	127	0										0									
60	PBBH	Blue Horizontal Bottom Pattern Position Offset	-128	127	0										0									
61	ERR	Auto Regi. Error code	0	-	0										0									
62	ADTM	A/D data input timing of Auto Regi.	0	255	97										81									
63	ADT2	A/D Timing 2	0	255	133										115									
64	SZLM	Size Limit	-128	127	0										0									
65	RTLM	Ratio Limit	0	127	80										80									
66	VUP	Auto Regi. Pattern Upper vertical position	0	2047	43": 60/ 53": 60										43": 41/ 53": 41									
67	VMID	Auto Regi. Pattern Middle vertical position	0	2047	43": 605/ 53": 605										43": 505/ 53": 505									
68	VLOW	Auto Regi. Pattern Lower vertical position	0	2047	43": 1153/ 53": 1153										43": 971/ 53": 971									
69	HLE	Auto Regi. Pattern left horizontal position	0	4095	43": 55/ 53": 55										43": 55/ 53": 55									
70	HMID	Auto Regi. Pattern middle horizontal position	0	4095	43": 636/ 53": 636										43": 636/ 53": 636									
71	HRIV	Auto Regi. Pattern right horizontal position	0	4095	43": 1217/ 53": 1217										43": 1217/ 53": 1217									
72	TEST	Auto regi. Pattern display switch	0	1	0																			
73	SFTF	Switch of shift fast	0	1	0																			
74	SFTE	Switch of shift enable	0	5	4																			
75	ACTL	Acount timer counter lower byte	0	-	0																			
76	ACTH	Acount timer counter upper byte	0	-	0																			
77	ATTN	Sensor level attenuation sw	0	1	43": 0/ 53": 0																			
78	VB1S	Start position of VBLKOUT1	0	1023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	VB1W	Width of VBLKOUT1	0	1023	8	8	8	8	16	16	16	16	16	16	16	16	8	8	8	8	16	16	16	16
80	VB2S	Start position of VBLKOUT2	0	1023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	VB2W	Width of VBLKOUT2	0	1023	32	65	40	49	60	127	78	95	77	94	20	37	27	56	35	36	50	107	65	68
82	VB3S	Start position of VBLKOUT3	0	1023	315	282	307	298	628	561	610	593	611	594	554	537	264	235	257	255	524	467	509	506
83	VB3W	Width of VBLKOUT3	0	1023	22	55	31	39	47	114	65	82	64	81	8	26	17	46	25	26	39	96	54	57
84	VB4S	Start position of VBLKOUT4	0	1023	0	0	0	0	78	134	91	113	78	91	7	7	0	0	0	0	0	0	0	0
85	VB4W	Width of VBLKOUT4	0	1023	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

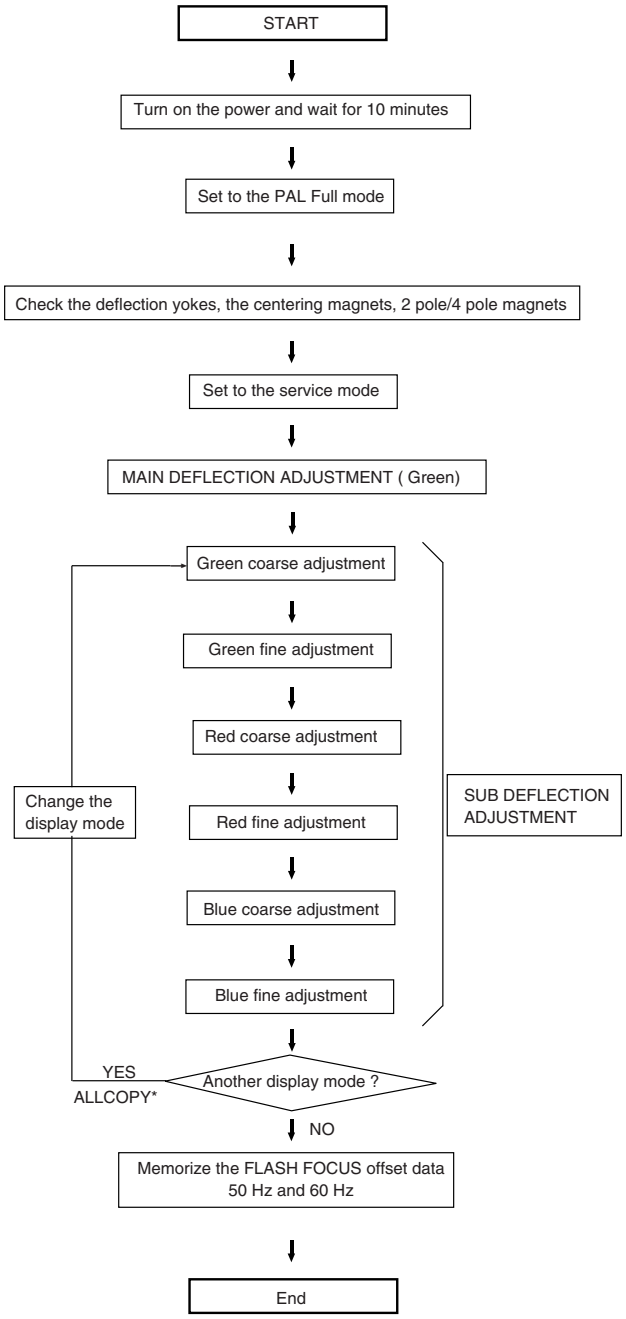
Note: Coarse Adjustment is prepared for each screen mode.					4:3					
					Green		Blue		Red	
	ADJUSTMENT		min	max	H	V	H	V	H	V
85	CENT	Coarse Adjustment	-512	511	35	20	35	20	35	20
86	SKEW	Coarse Adjustment	-512	511	0	0	0	0	0	0
87	SIZE	Coarse Adjustment	-512	511	-100	-75	-100	-75	-100	-75
88	LIN	Coarse Adjustment	-512	511	0	0	-410	0	410	0
89	KEY	Coarse Adjustment	-512	511	0	0	0	-120	0	120
90	PIN	Coarse Adjustment	-512	511	0	300	0	300	0	300
91	MLIN	Coarse Adjustment	-512	511	0	0	145	0	-145	0
92	MSIZ	Coarse Adjustment	-512	511	0	0	0	0	0	0

Adjustment Limit		
CENT	H	35±170
	V	20±170
SIZE	H	max : - 75
LIN	H (Blue)	min : - 425
	H (Red)	max : 425

Category	Item		Function	Standard Data									Device Name
				Common	50 Hz				60 Hz				
	No.	Name			DRC100	DRC1250	Progressive	HD1080i	DRC100	DRC1250	Progressive	HD1080i	(Slave Address)
OPM	00	COM	Comb Operation Selection	00									*Option Misc*
	01	APC	APC Switch	01									
	02	TSY	TV System Selection under searching with Auto TV System	00									
	03	MUT	No Signal Mute	00									
	04	AFM	Auto FM switch	01									
	05	TVO	V-Angle correction to Picture Rotation	00									
	06	DBL	Disable Blueback function	01									
	07	SSO	Speed CH Search Selection	01									
	08	SCH	CH Selection for Shipping Condition	01									
	09	SCA	Cable/Air Selection for Shipping Condition	01									
	0A	DMG	Disable Menu-operation Guide	00									
	0B	VSN	Enable Noise Reduction in Video Mode	00									
	0C	RUC	RF Signal Change Counter after Unlocked	0F									
	0D	RLC	RF Signal Change Counter after Locked	0F									
	0E	LBB	Lower Blue Back Intensity	00									
	0F	23P	2/3 Pull Down Mode 0: Force OFF, 1: Auto	01									
	10		MS Background color to gray										
OPB	00	OP1	Optional Bits 1 (see the specified sheet)	FB									*Option-Bits*
	01	OP2	Optional Bits 2 (see the specified sheet)	17									
	02	OP3	Optional Bits 3 (see the specified sheet)	05									

3-12. REGISTRATION ADJUSTMENT

3-12-1.ADJUSTMENT FLOW


START
Turn on the power and wait for 10 minutes
Set to the PAL Full mode
Check the deflection yokes, the centering magnets, 2 pole/4 pole magnets
Set to the service mode
MAIN DEFLECTION ADJUSTMENT (Green)
Green coarse adjustment
Green fine adjustment
Red coarse adjustment
Red fine adjustment
Blue coarse adjustment
Blue fine adjustment
SUB DEFLECTION ADJUSTMENT
Change the display mode
YES
ALLCOPY*
Another display mode ?
NO
Memorize the FLASH FOCUS offset data 50 Hz and 60 Hz
End

< Caution >

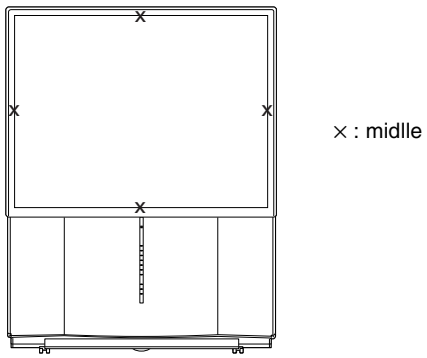
Before adjustment registration, set PWM2 Data in PJE service mode as following.

43" model.....890
53" model.....315

3-12-2. Setup for Adjustment

1. Marking

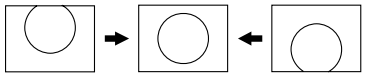
1) At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.



3-12-3. Method of Main Deflection Adjustment

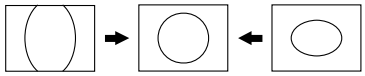
1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the PAL SPCB signal, and set the DRC1250.
3. Set in the Service mode, and select the category “GE1” , “GE2”.
4. Adjust “00 VPS” in “GE1” so that the picture is displayed in the center of screen.

00 VPS

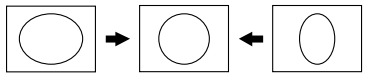


5. Adjust “01 VSZ” in “GE1” and “02 HSZ” “GE2” so that the picture size is within the specification.

01 VSZ



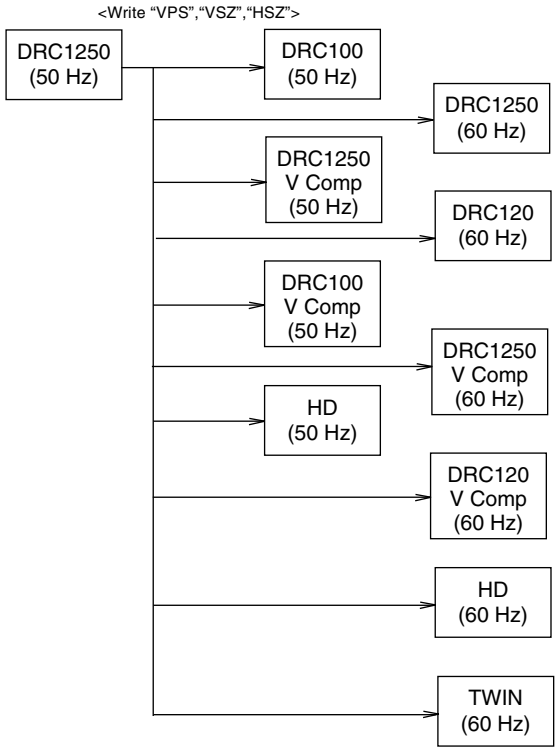
02 HSZ



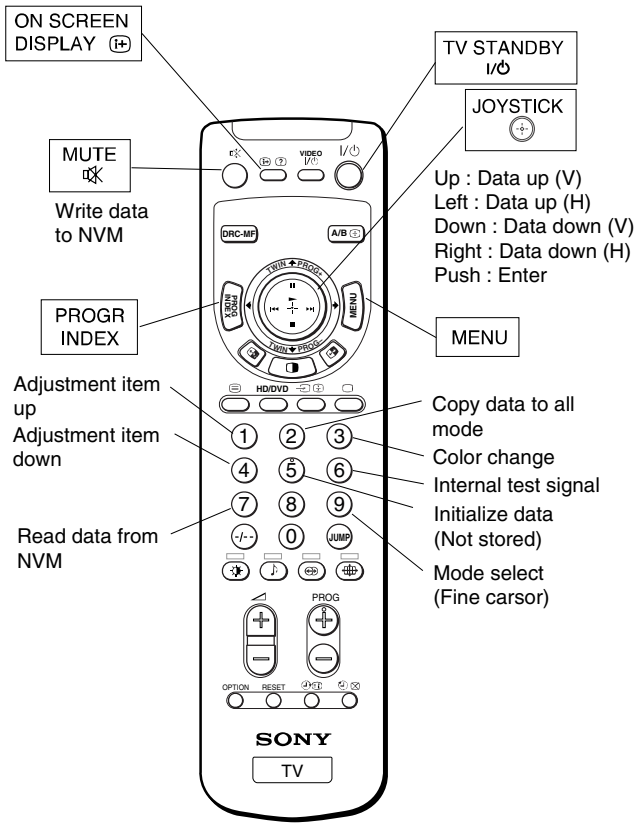
SPECIFICATION : Overscan Spec. = 0.9%

Input Signal	H SIZE	V SIZE
PAL MONOSCOPE	14.7 ± 0.1 sq.	11.2 ± 0.1 sq.

6. Write “VPS, VSZ and HSZ” adjusted data to other mode service data.



3-12-4. Operation Method for Projector Engine (PJE) Mode



RM-998

1. Functions of Keys on Commander

- ① : Changes adjustment item. (item No. moves up)
  : Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
  : Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ◎ : Changes data value. (up, down, or to the left or right)

(move) :Marker moves up, down, or to the left or right. (in fine adjustment mode)

- ③ : Changes adjustment color. (except item No. 00~38) GRN → BLU → RED
- ⑥ : Displays or changes internal test signals.
  : crosshatch + external signal → dot + external signal → crosshatch only → dot only → off
- ⑨ : Switches adjustment mode. carsor adjustment mode ⟷ fine adjustment mode
- ◎ : Switches marker moving method. (in fine adjustment mode) joystick key → ① and ④ buttons

(push)

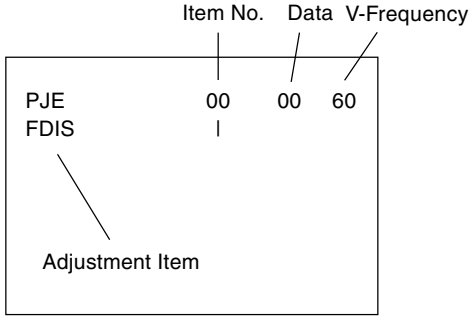
Commander Function (PJE mode)

Button	Mode	Description
🔇 + ⓪	WRITE	Writes data to NVM.
⑦ + ⓪	READ	Reads data from NVM.
⑤ + ⓪	*PJE INITIAL	INITILIZED ALL DATA.
② + ⓪	*PJE COPY	Copies and writes data of DRC1250 (50Hz) mode to all other modes.

* : only data in the PJE mode.

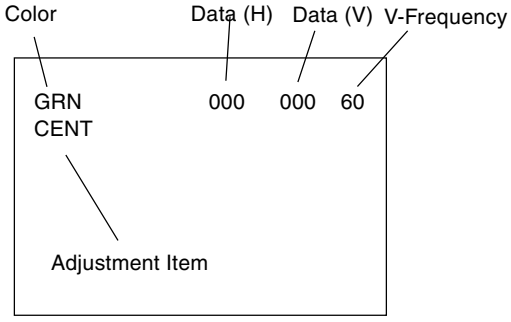
2. Operation Method for Rough Adjustment

1) Set in the Service mode, and select the category “PJE”.
2) Press “①” or “④” button on the commander to select the item, and move “◎” up, down, or to the left or right to change the data.



3) Select item “GRN CENT”. When BLU or RED is displayed, press “③” button on the commander to change the adjustment color in the order of GRN → BLU → RED.

4) In the GRN, BLU, or RED mode, move "⊕" up or down to change the data in vertical direction, or move "⊕" to the left or right to change the data in horizontal direction.

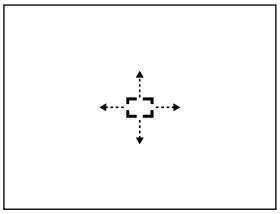


5) When it moves from PJE to other categories, repeat "①" or "④" button and press it.

3. Operation Method for Fine Adjustment (in GRN, RED, or BLU Mode)

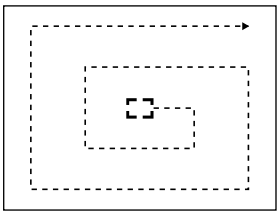
1) Set in the Service mode, and select the category "PJE".
2) Select item "FDIS" so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
3) Press "⑨" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
4) Push "⊕ (ENTER)" button, and the marker color will be switched between green (GRN mode) and white alternately.
5) Use "①" or "④" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

• When marker color is white.
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

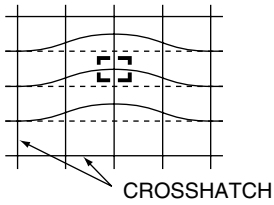
• When marker color is green. (GRN mode)



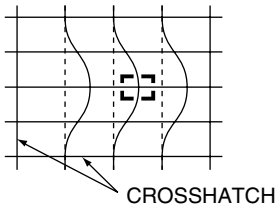
① : moves the marker clockwise from center to outside.
④ : moves the marker counterclockwise from outside to center.

• Fine adjustment can be made on the basis of marker position using joystick key.

Movement when joystick key is moved up.



Movement when joystic key is moved to the right.



6) Press "⑨" button on the commander to return to the rough adjustment mode.

3-12-5. Method of Projector Engine Adjustment (Sub Deflection Adjustment)

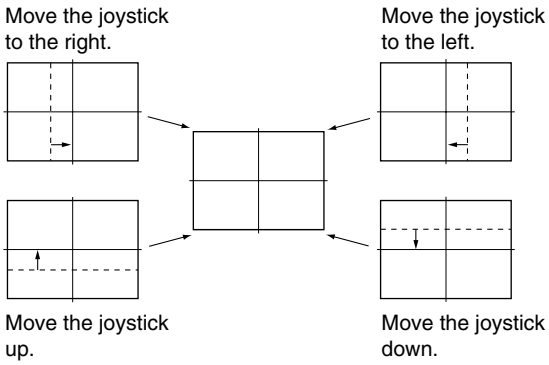
Adjustment ○ : Yes – : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○/ –
MSIZ	○ / –	○ / –	○ / –

1. Green Adjustment

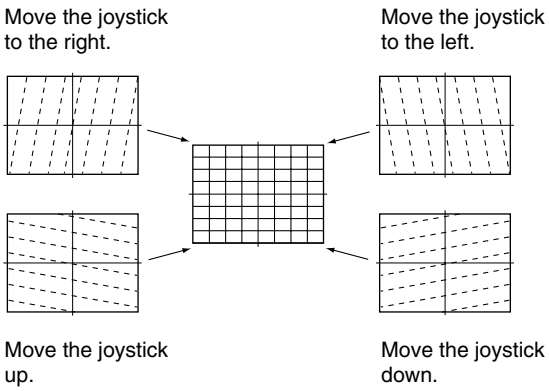
1) Place the caps on the red and blue lenses so that only the green color is displayed.
2) Enter the monoscope signal to set.
3) Set in the Service mode, and select the category "PJE".
4) Press "⑥" button on the commander to display internal test signal (crosshatch).
5) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

• GRN CENT (horizontally/vertically)



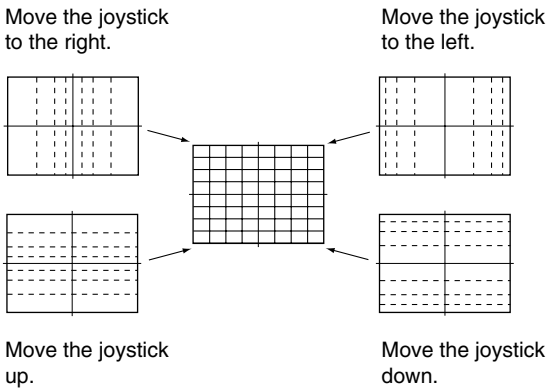
6) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



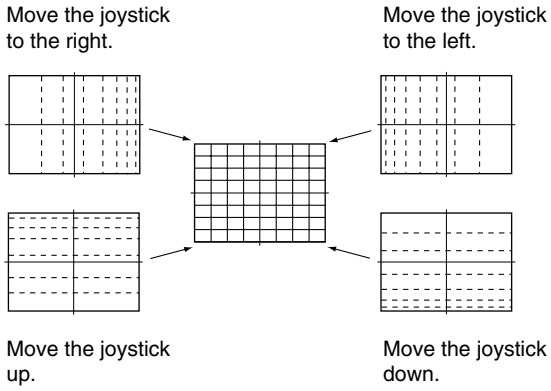
7) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)



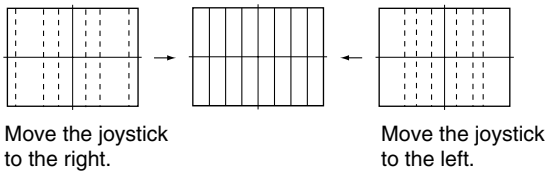
8) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal

• GRN LIN (horizontally/vertically)



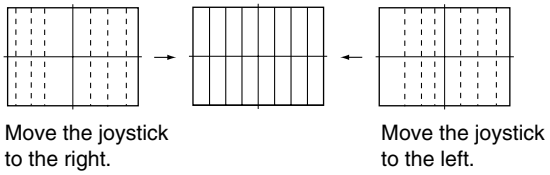
9) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



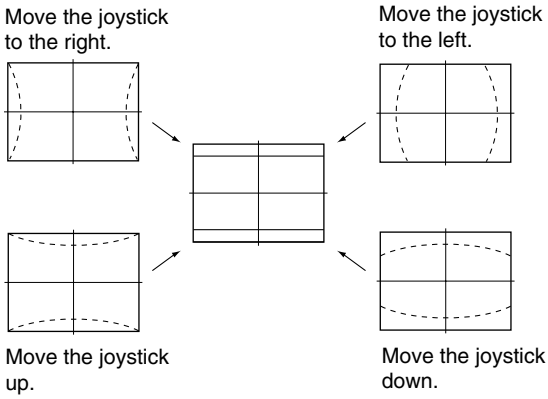
10) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

• GRN MSIZ (horizontally)



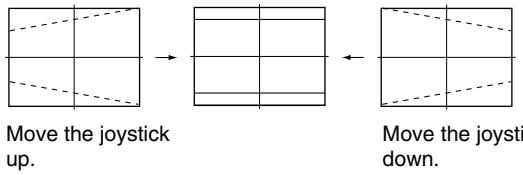
10) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight .Adjust so that upper and lower hprizontal lines on the screen become straight

• GRN PIN (horizontally/vertically)



11) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



12) Press “⑨” button on the commander to enter the fine adjustment mode.
13) Make fine adjustment so that horizontal lines and vertical lines become straight.
14) Press “⑨” button on the commander to return to the coarse adjustment mode.

2. Red Adjustment

1) Place a cap on the blue lens so that green and red colors are displayed.
2) Press "③" button on the commander to select RED mode.
3) Adjust the following items so that blue lines overlap with green lines.

• RED CENT (horizontally/vertically)
• RED SKEW (horizontally/vertically)
• RED SIZE (horizontally/vertically)
• RED LIN (horizontally)
• RED MSIZ (horizontally)
• RED MLIN (horizontally)
• RED PIN (horizontally/vertically)
• RED KEY (/vertically)

4) Press "⑨" button on the commander to enter the fine adjustment mode.
5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
6) Press "⑨" button on the commander to return to the rough adjustment mode.

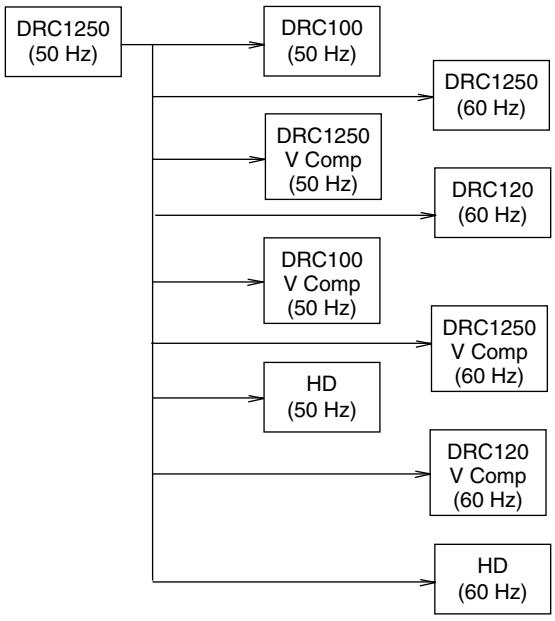
3. Blue Adjustment

1) Place a cap on the red lens so that green and blue colors are displayed.
2) Press "③" button on the commander to select BLUE mode.
3) Hereinafter, use same manner as that of blue adjustment to adjust so that the red lines overlap with green lines.3.
   Blue Adjustment

4. Registration Data Writing

1) Select " PJE "service item.
   Ex.PJE 00 FDIS
2) Select " PJE 03 ALCP" change date " 00" to " 01" using Joy Stick Key, Then push " MUTE" + " 0" confirm red ALCP OSD appear.
3) Regi data of DRC1250(PAL) is copied to all other mode.
   When ALCP OSD disappear, data copy is finished.

<PJE adjusted DATA ALL COPY>



3-13. AUTO CONVERGENCE SETTING

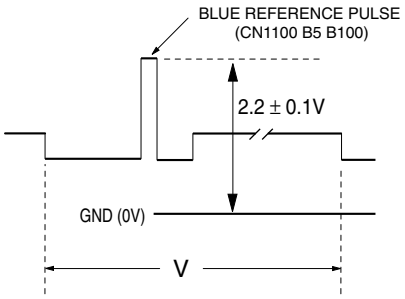
This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Receive the 50Hz (PAL) signal.
3. Set in the service mode.
4. Press "(AUTO CONVERGENCE)" button on the front panel of the set.
   (The offset value is now automatically stored.)
5. Check that no error message appears.
   If an error message appears, recheck.
6. Enter the NTSC monoscope signal, and perform the same steps in the PAL modes respectively.

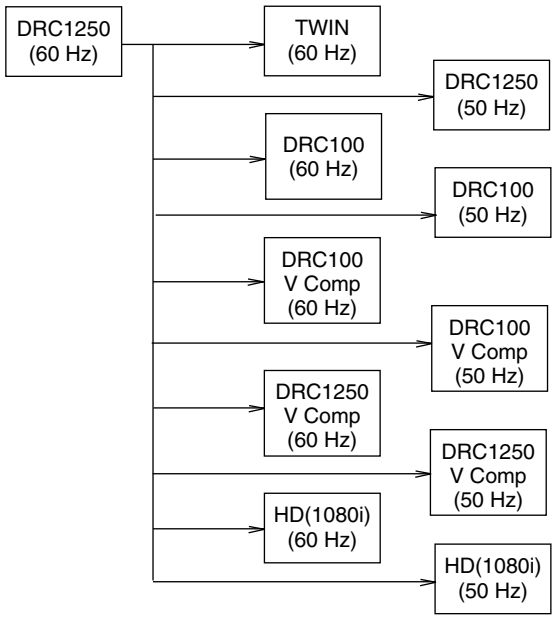
3-14. BLUE OFFSET ADJUSTMENT

This adjustment must be ending the G2 adjustment .

1. Receive the HD(1080i/60Hz Black) signal into component in terminal.
2. Set PICTURE 100%, others are normal, DRC1250/60Hz.
3. Adjust with SLN so that the blue reference pulse peak voltage of B100 terminal (CN1100) enters into standard.
   Item : GE2 03 SLN



4. Write the adjustment value in the NVM area of each mode after the adjustment.



3-15. WHITE BALANCE ADJUSTMENT

1. Enter the monoscope signal.
2. Set in the service mode.
3. Press "MENU" button on the commander to select "A/V CONTROL" ➧ "PICTURE MODE" ➧ "ADJUST".

Adjustment Condition

PICTURE MODE : PERSONAL
PICTURE : 0%
BRIGHT : 50%

If the noise of DCF (Digital Comb Filter) has an effecting white balance adjustment, change service data as follows while the adjustment.

OPM 00 COM : 00 → 01

(This time, beginning inspection also should be done under some condition.)

Adjusting Parameter

Category	Item	
WHB	03	SBR
	04	RDR
	06	BDR
	07	RCT
	09	BCT

4. Adjust "03 SBR" so that 10 IRE section barely grows.
5. Enter the all-white pattern signal.
6. Adjust "07 RCT" and "09 BCT" so as to attain the optimum white balance.
7. Adjust "03 SBR" so that 100 IRE section barely grows.
8. Adjust "04 RDR" and "06 BDR" so as to attain the optimum white balance.
9. Repeatedly adjust the white balance for the minimum and maximum picture setting.
10. Enter the monoscope signal, and select "SAJ 00 PIC", and set the data to "00".
11. Adjust "03 SBR" so that the border between 0 IRE and 10 IRE becomes distinct.

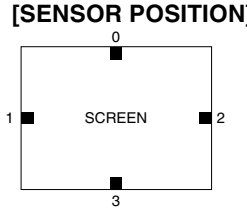
3-16. AUTO CONVERGENCE ERROR CODE LIST

If an error code is displayed after the set has been fully adjusted, correctly, plese check the following items : position, tilt and sizing. If either of these adjustments are off, even slightli, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	NOTE
10	Sensor 0 low output	Check sensor 0, connection/Wiring, circuit and pattern position. (Are patterns hitting sensor ?) Adjust V UP, HMID if necessary.
11	Sensor 1 low output	Check sensor 1, connection/Wiring, circuit and pattern position. (Are patterns hitting sensor ?) Adjust HLE, VMID if necessary.
12	Sensor 2 low output	Check sensor 2, connection/Wiring, circuit and pattern position. (Are patterns hitting sensor ?) Adjust HRIV, VMID if necessary.
13	Sensor 3 low output	Check sensor 3, connection/Wiring, circuit and pattern position. (Are patterns hitting sensor ?) Adjust VLOW, HMID if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V center or skew adjustment loop overflow	Check VMID data and check registration condition.
31	H center or skew adjustment loop overflow	Check HMID data and check registration condition.
32	H linearity or size adjustment loop overflow	Check HLE and HRIV data and check registration condition.
40	V center regi data overflow	Check VMID data and confirm V center data (all modes) is not near 511.
41	H center regi data overflow	Check HMID data and confirm H center data (all modes) is not near 511.
42	V skew regi data overflow	Check VMID data and confirm V skew data (all modes) is not near 511.
43	H skew regi data overflow	Check HMID data and confirm H skew data (all modes) is not near 511.
44	H linearity regi data overflow	Check HLE data and HRIV data and confirm H center data (all modes) is not near 511.
45	H size regi data overflow	Check HLE data and HRIV data and confirm H center data (all modes) is not near 511.
50	V center regi data overflow	Check VMID data and confirm V center data (all modes) is not near 512.
51	H center regi data overflow	Check HMID data and confirm H center data (all modes) is not near 512.
52	V skew regi data overflow	Check VMID data and confirm V skew data (all modes) is not near 512.
53	H center regi data overflow	Check HMID data and confirm H skew data (all modes) is not near 512.
54	H linearity regi data overflow	Check HLE data and HRIV data and confirm H center data (all modes) is not near 512.
55	H size regi data overflow	Check HLE data and HRIV data and confirm V center data (all modes) is not near 512.
60	Cent/Skew calibration loop overflow	Check HMID and VMID data and check registration condition.
61	Size/Lin calibration loop overflow	Check HLE, HRIV, VUP, and VLOW data and check registration condition.
70	V cent/Skew ratio limit	Check sensors 1 and 2, connection/wiring, circuit, increase RTLM.
71	H cent/Skew ratio limit	Check sensors 0 and 3, connection/wiring, circuit, increase RTLM.
73	H size/Lin ratio limit	Check sensors 1 and 2, connection/wiring, circuit, increase RTLM.
80	Size limit Error	Check that horizontal size data is not near SZLM.

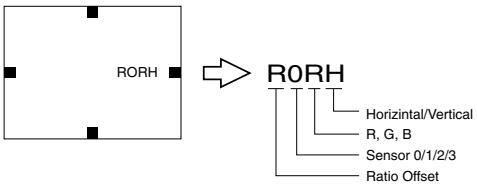
[SENSOR POSITION]



0 : UPPER SENSOR
1 : LEFT SENSOR
2 : RIGHT SENSOR
3 : LOWER SENSOR

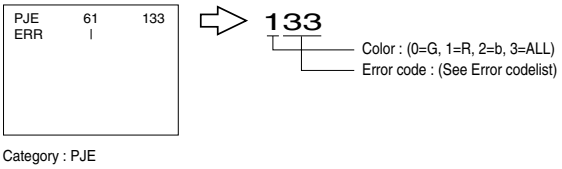
• ERROR CODE SCREEN DISPLAY

(When press " (AUTO CONVERGENCE)" button.)



• ERROR CODE SCREEN DISPLAY

(When select "PJE" ➧ "61 ERR".)



Category : PJE
Item : 61 ERR

SECTION 4
SAFETY RELATED ADJUSTMENT

4-1. HV REGULATION ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

⊠ : VR8001
◪ : C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124
D8019, D8020, D8022, D8028, D8036
IC8008
Q8035, Q8043
R8043, R8159, R8166, R8171, R8196, R8201
T8004(LOT), T8005(FBT)
HV block, D board

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the highvoltage block. (Fig.4-1)
2. Power on the set.
3. Confirm that the static voltmeter reading is 31.0 ± 0.2 kV.
4. If not, adjust with VR8001 to the specified value.
5. After adjustment, apply sufficient amound of RTV KE490 on the VR8001. (Fig.4- 2)

4-2. HV HOLD-DOWN ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

⊠ : VR8002
◪ : C8079, C8083, C8090, C8129
D8013, D8015, D8038, D8043, D8051
IC8006
Q8021
R8055, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230
T8004(LOT), T8005(FBT)
HV block, D board

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the highvoltage block. (Fig.4- 1)
2. Power on the set.
3. Connect an external 10k VR at CN8015 and adjust this VR so that the high voltage is 34.50 kV.
4. Confirm that the static voltmeterreading is 34.5 ± 0.4 kV.
5. If not, adjust with VR8002 to the specified value.
6. After adjustment, put the VR cover on VR8001 as shown below and apply sufficient amound of RTV KE490 on the VR8002. (Fig.4- 2)

4-3.+B MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC6503.

1. Supply 220V AC to variable autotransformer.
2. Receive dot signal pattern and set the PICTURE and BRIGHTNESS setting to their minimum.
3. Confirm the voltage of TP+B 135V is less than 137.0 Vdc.
4. If step 4 not satisfied, replace IC6503 and repeat above steps.

4-4.+B OVP CONFIRMATION

1. Add to low voltage power supply between to TP6502 and 4 pin of IC6502.
2. Supply 220V AC to variable autotransformer.
3. Power on the Set and receive dot signal pattern.
4. Set the PICTURE and BRIGHTNESS settings.
5. Check the OVP is actived.
   Operate : power supply voltage 2.70 ± 0.05 V

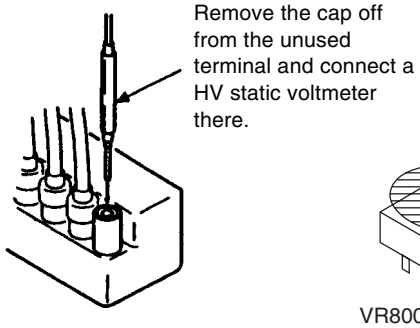
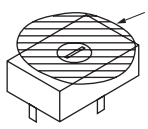


Fig. 4-1



VR8001, VR8002

Fig. 4-2

SECTION 5
ELECTRICAL ADJUSTMENTS

5-1. Picture Quality Adjustment

5-1-1. Preparation

1. Set in the service mode.
2. Set respective items as follows.

Adjustment Condition

DRC-MF : DRC1250
PICTURE MODE : HI-FINE
3D-NR MODE : OFF
ECO MODE : OFF
WIDE MODE : OFF

Category	Item		Data
SAJ	00	PIC	3F
	06	DYC	00
	0C	GMS	00
	0D	GMR	00
	0E	GMG	00
	0F	GMB	00
	13	ABT	00
	14	CLO	07
	16	HUO	07
	19	PIO	00
JGL	03	BBT	00
	04	LML	03
	05	SCO	07
WHB	04	RDR	1F
	05	GDR	1F
	06	BDR	1F
	07	RCT	1F
	08	GCT	1F
	09	BCT	1F

3. Connect the oscilloscope probe to the following point on the A board.

Original Condition

DRC-MF : DRC1250
PICTURE MODE : HI-FINE
3D-NR MODE : OFF
ECO MODE : OFF
WIDE MODE : OFF

Category	Item		Data			
			50TV	50VIDEO	60TV	60VIDEO
SAJ	00	PIC	25 (HI-Fine)			
	02	COL	22 (HI-Fine) (53")			
			1F (HI-Fine) (43")			
	06	DYC	0 (HI-Fine)			
	0C	GMS	00 (HI-Fine)			
	0D	GMR	00 (HI-Fine)			
	0E	GMG	00 (HI-Fine)			
	0F	GMB	00 (HI-Fine)			
	14	CLO	07	07	07	07
	16	HUO	07	53 : 07	07	53 : 07
				43 : 06		43 : 07
	19	PIO	(TWIN)=07			
	13	ABT	53 : 04, 43 : 07			
JGL	03	BBT	00			
	04	LML	00			
	05	SCO	07			
WHB	05	GDR	1F			
	08	GCT	1A			

Measurement Point

A Board CN1100 :
① pin R100 → VR
⑤ pin B100 → VB

Note : After the adjustment 5-3. Picture Quality Adjustment, these adjustment parameters must be recovered to the original condition.

5-1-2. NTSC Video Input

1. Enter the NTSC video color bar (White & color 75%) signal.
2. Enter the service mode, and set respective items as follows.
3. Measure waveform, and each item is adjusted to become the following figure.
4. Press "(SWAP)" button on the commander, when the left screen and the right screen are changed.
5. After adjustment finished, press "(MUTE)" + "⓪" button to write the data to the NVM.

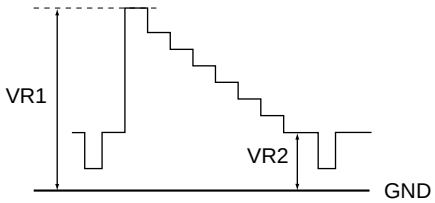
(i) SUB CONTRAST

Condition :

Category	Item		Data
SAJ	00	PIC	3F
	02	COL	00
	19	PIO	00

Adjusting Parameter :

LEFT screen : YCT 08 YOL
RIGHT screen : SYC 08 YOL



VR1 – VR2 = 1.73 ± 0.07 Vp-p

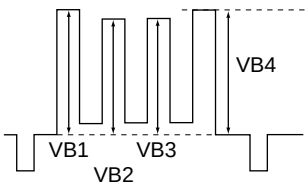
(ii) SUB HUE/SUB COL

Condition :

Category	Item		Data
SAJ	02	COL	22
	16	HUO	07

Adjusting Parameter :

LEFT screen : YCT 0A COL
00 TNT
RIGHT screen : SYC 0A COL
00 TNT



VB1 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

5-1-3. NTSC RF Input

1. Enter the NTSC RF color bar (White & color 75%) signal.
2. Adjust with the same manner as 5-1-2. NTSC Video Input.

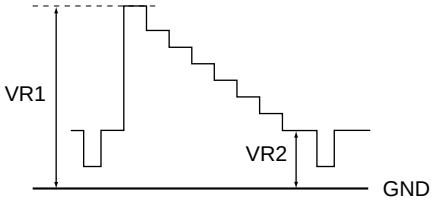
(i) SUB CONTRAST

Condition :

Category	Item		Data
SAJ	00	PIC	3F
	02	COL	00
	19	PIO	00

Adjusting Parameter :

LEFT screen : YCT 04 SCT
RIGHT screen : SYC 04 SCT



VR1 – VR2 = 1.73 ± 0.07 Vp-p

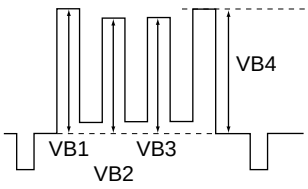
(ii) SUB HUE/SUB COL

Condition :

Category	Item		Data
SAJ	02	COL	22
	16	HUO	07

Adjusting Parameter :

LEFT screen : YCT 03 SCL
00 TNT
RIGHT screen : SYC 03 SCL
00 TNT



VB1 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

5-1-4. PAL Video Input

1. Enter the PAL video color bar (White & color 75%) signal.
2. Adjust with the same manner as 5-3-2. NTSC Video Input.

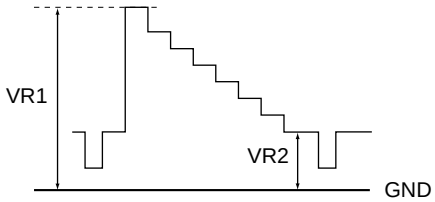
(i) SUB CONTRAST

Condition :

Category	Item		Data
SAJ	00	PIC	3F
	02	COL	00
	19	PIO	00

Adjusting Parameter :

LEFT screen : YCT 04 SCT
RIGHT screen : SYC 04 SCT



VR1 – VR2 = 1.73 ± 0.07 Vp-p

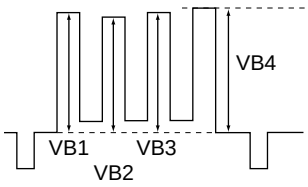
(ii) SUB HUE/SUB COL

Condition :

Category	Item		Data
SAJ	02	COL	22

Adjusting Parameter :

LEFT screen : YCT 03 SCL
RIGHT screen : SYC 03 SCL



VB1 = VB3 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

5-1-5. PAL RF Input

1. Enter the PAL RF color bar (White & color 75%) signal.
2. Adjust with the same manner as 5-3-2. NTSC Video Input.

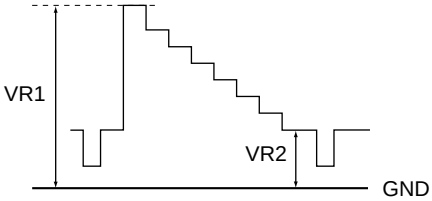
(i) SUB CONTRAST

Condition :

Category	Item		Data
SAJ	00	PIC	3F
	02	COL	00
	19	PIO	00

Adjusting Parameter :

LEFT screen : YCT 04 SCT
RIGHT screen : SYC 04 SCT



VR1 – VR2 = 1.73 ± 0.07 Vp-p

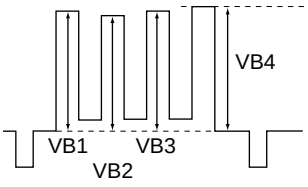
(ii) SUB HUE/SUB COL

Condition :

Category	Item		Data
SAJ	02	COL	22

Adjusting Parameter :

LEFT screen : YCT 03 SCL
RIGHT screen : SYC 03 SCL



VB1 = VB3 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

5-2. Color Offset

1) Enter the PAL RF signal.
2) Enter the service mode, and write the following data to the NVM.

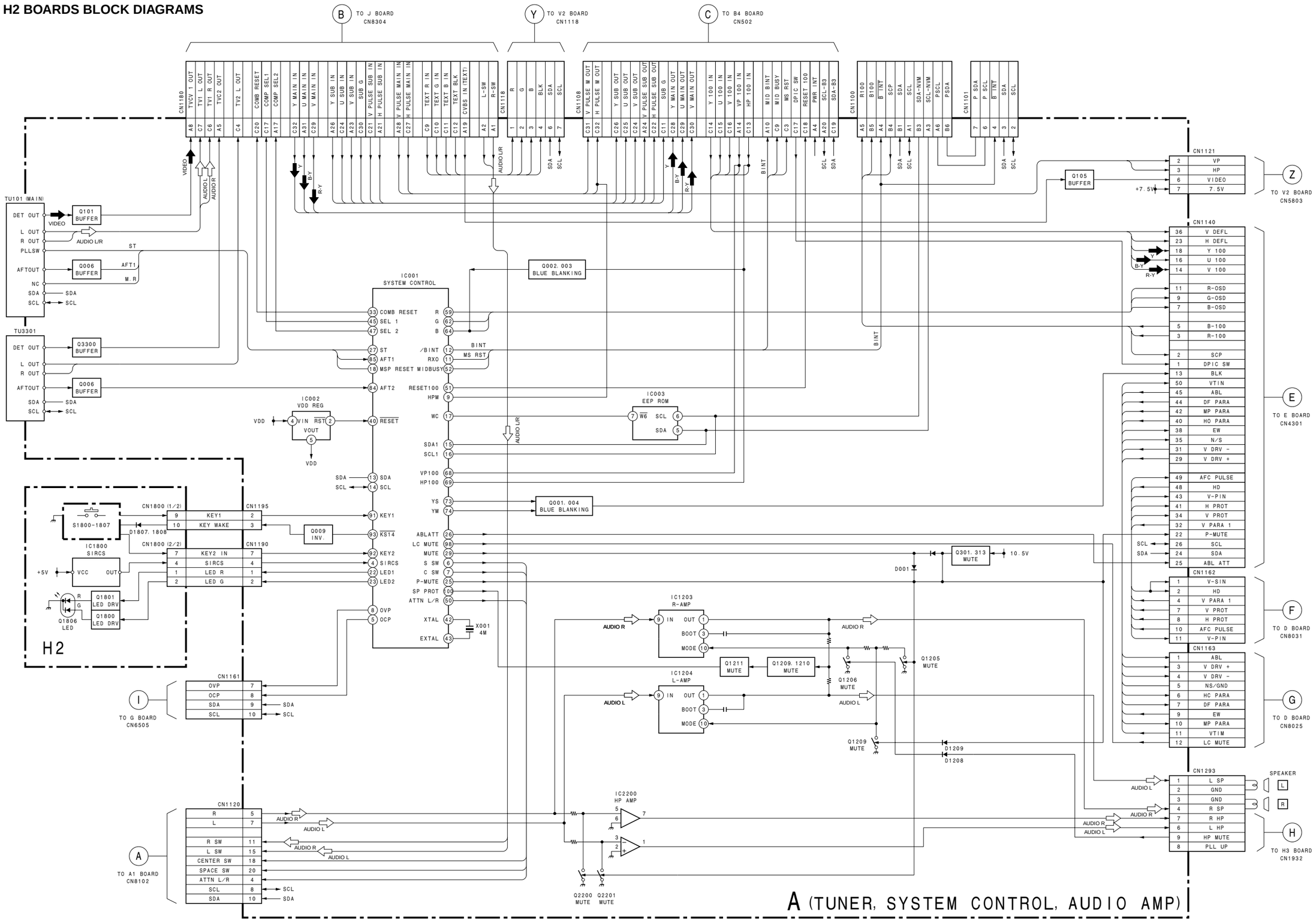
Category	Item	Data			
		50TV	50VIDEO	60TV	60VIDEO
SAJ	14 CLO	07	07	07	07

Categor	Item		Dynamic	Standard	HiFine
SAJ	02 COL	43"	2D	27	1F
		53"	30	2A	22

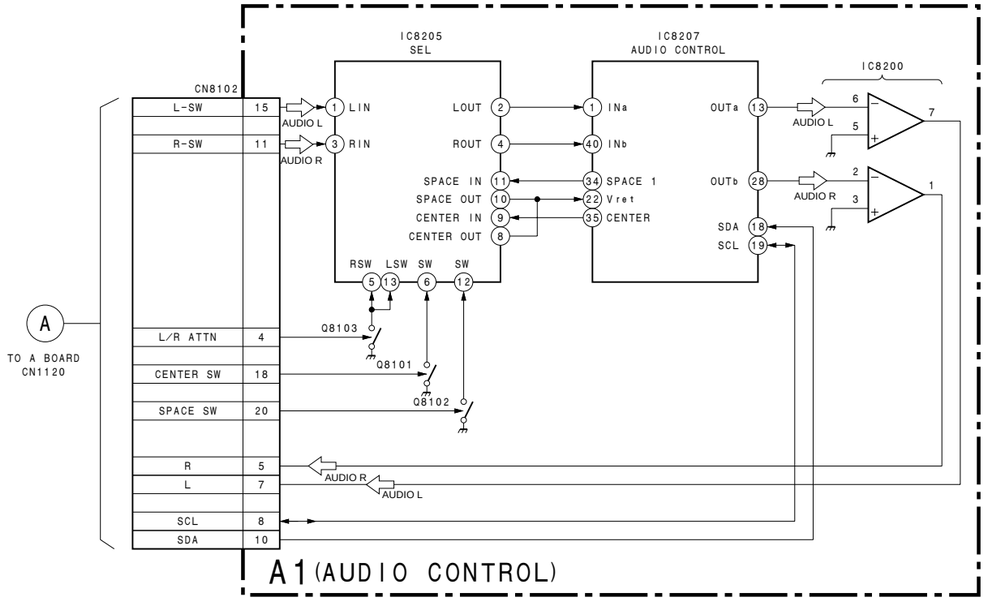
SECTION 6
DIAGRAMS

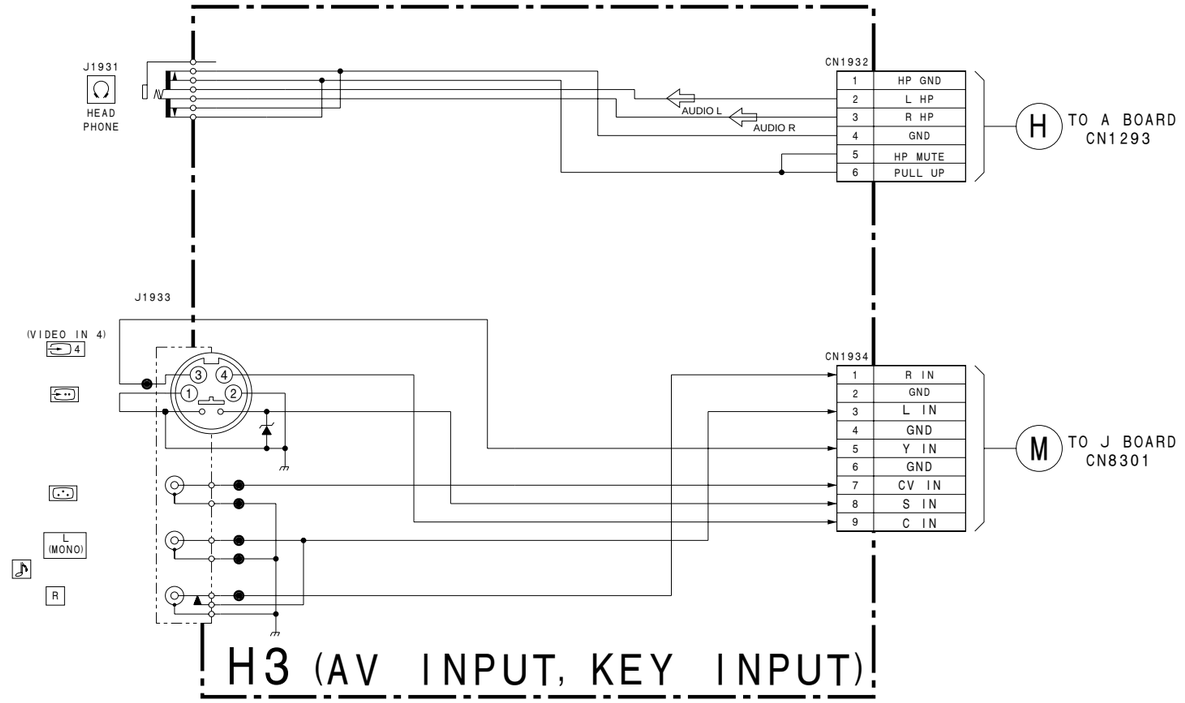
6-1. BLOCK DIAGRAMS

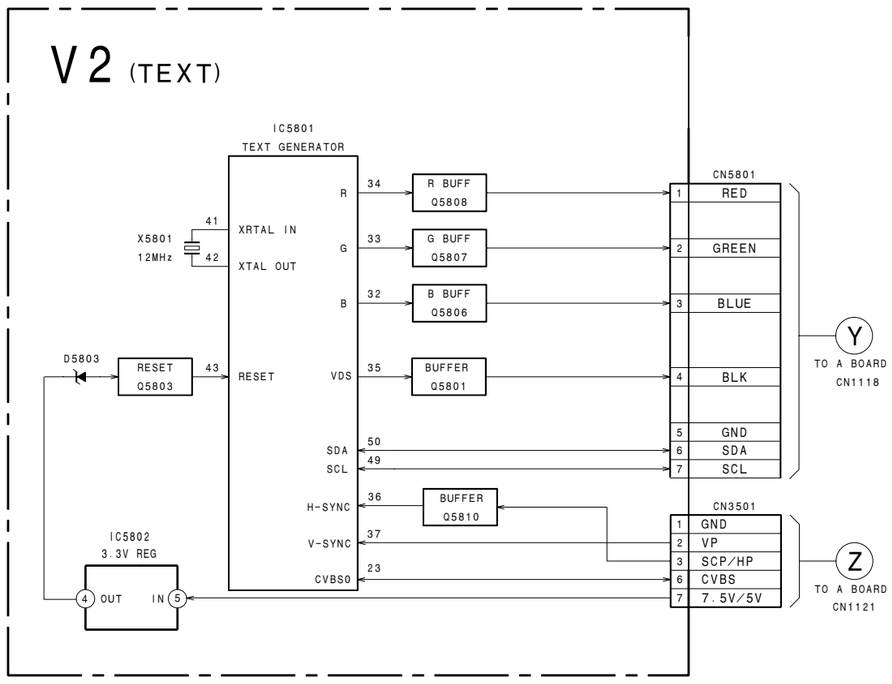
(1) A AND H2 BOARDS BLOCK DIAGRAMS



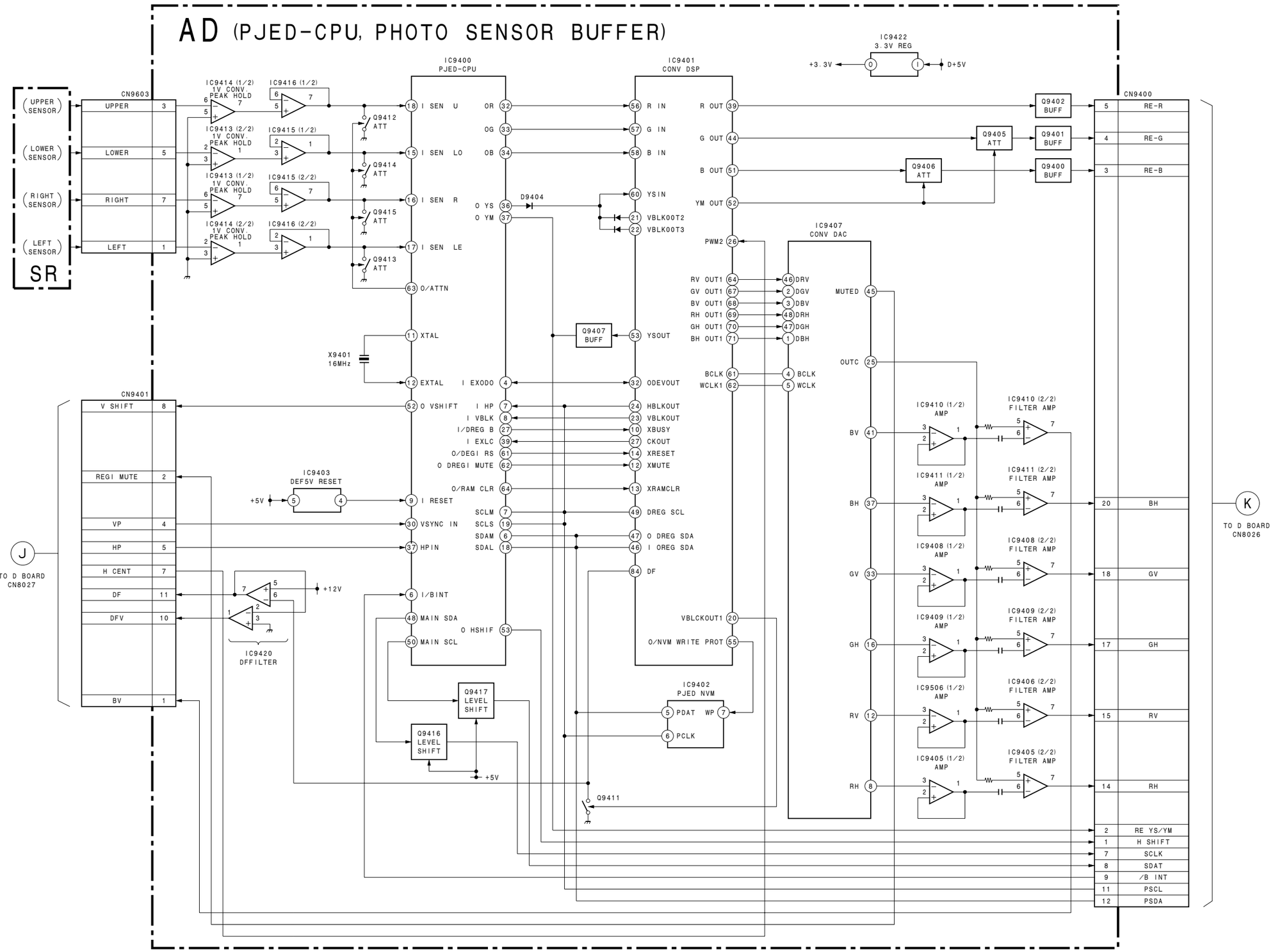
(2) A1 AND BOARDS BLOCK DIAGRAM



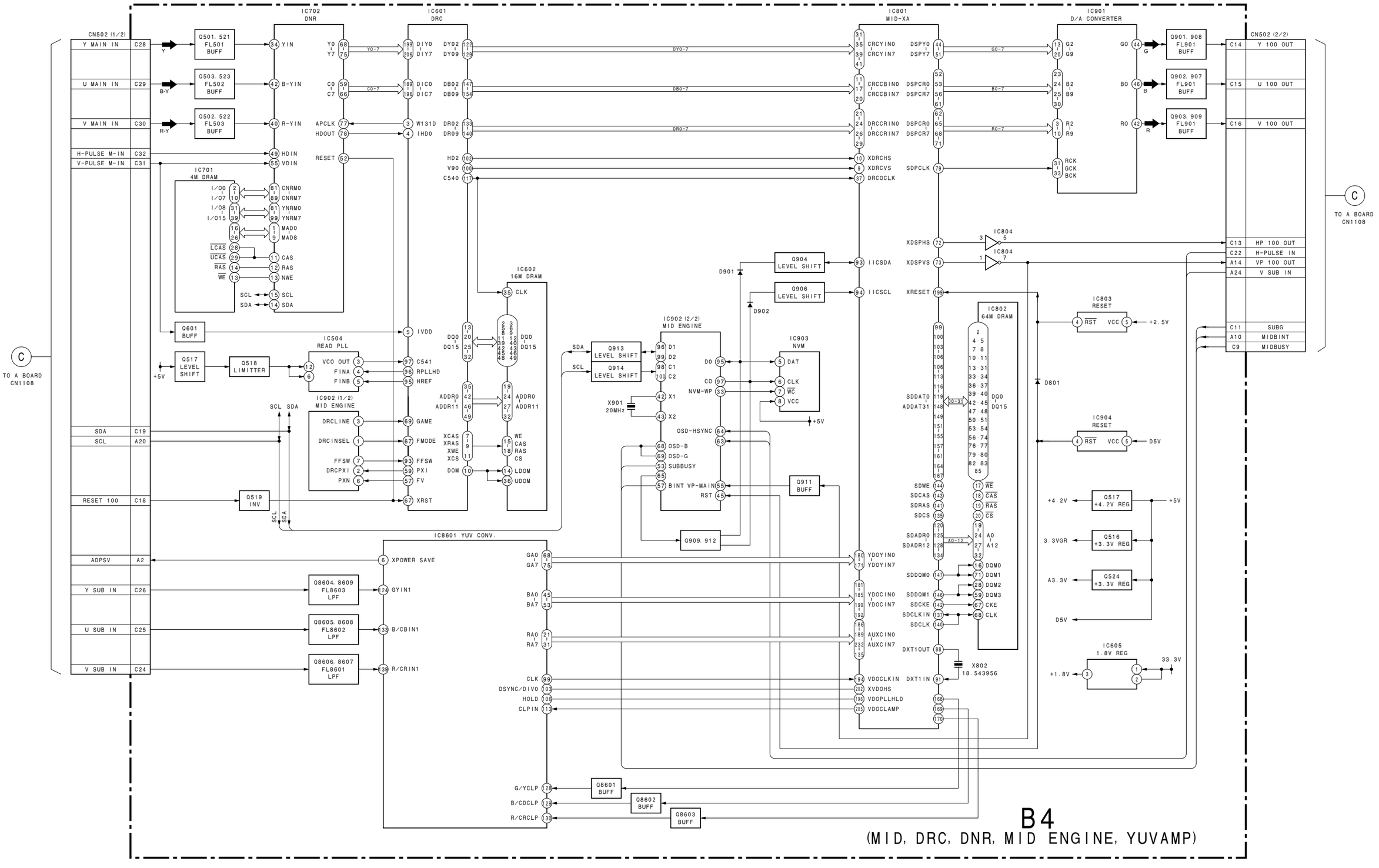




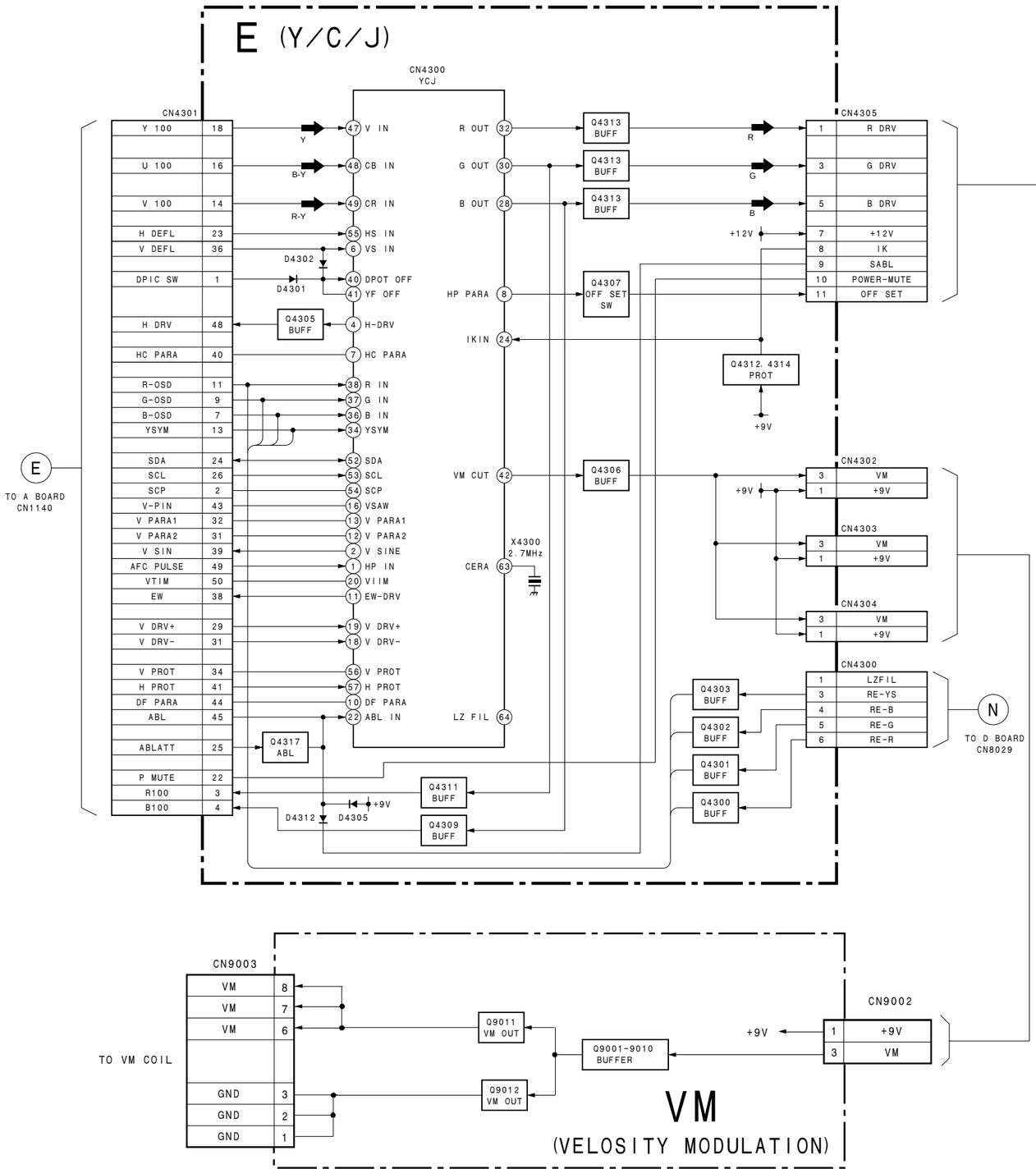
(3) AD AND SR BOARDS BLOCK DIAGRAM



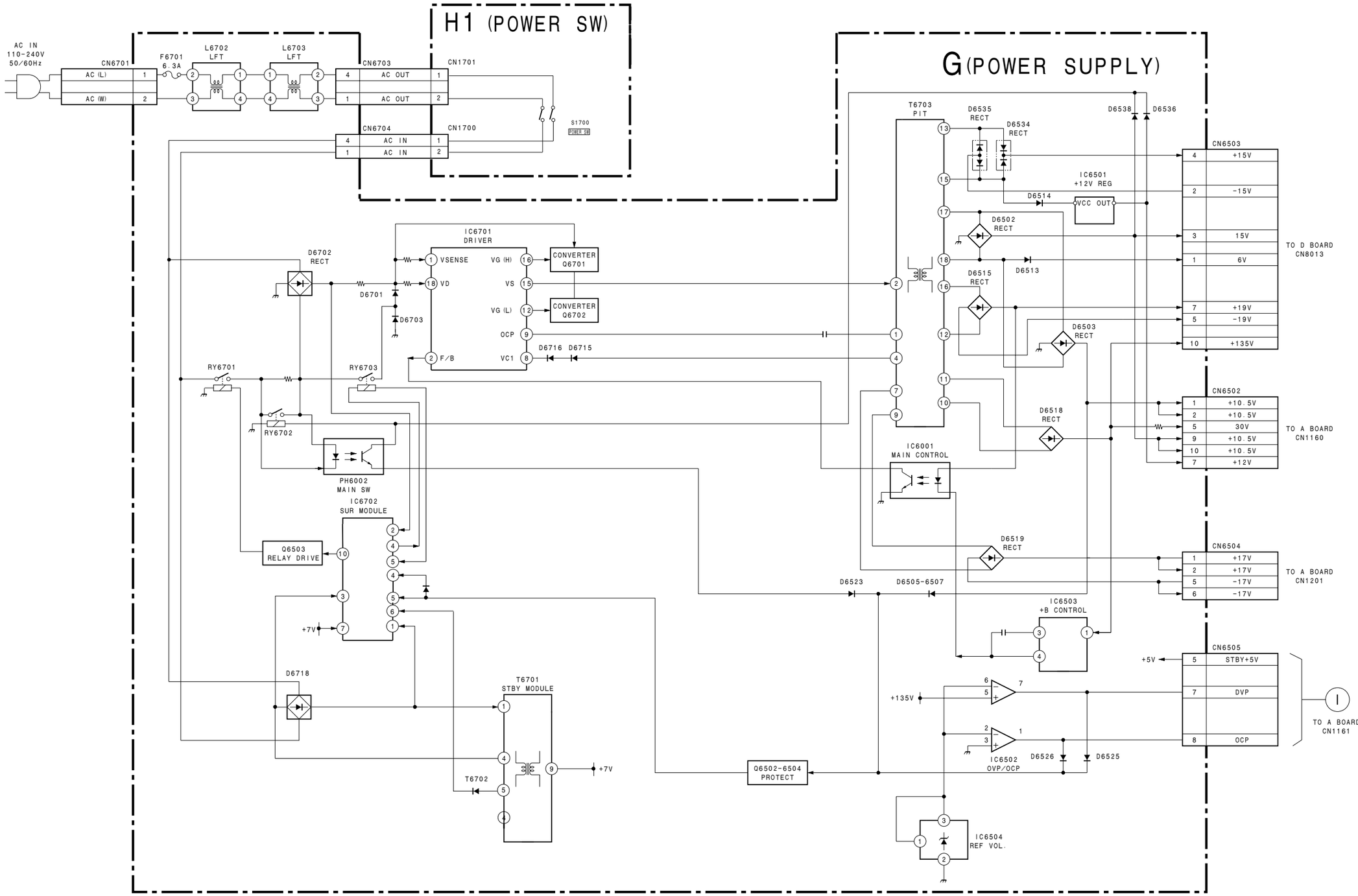
(4) B4 BOARD BLOCK DIAGRAM



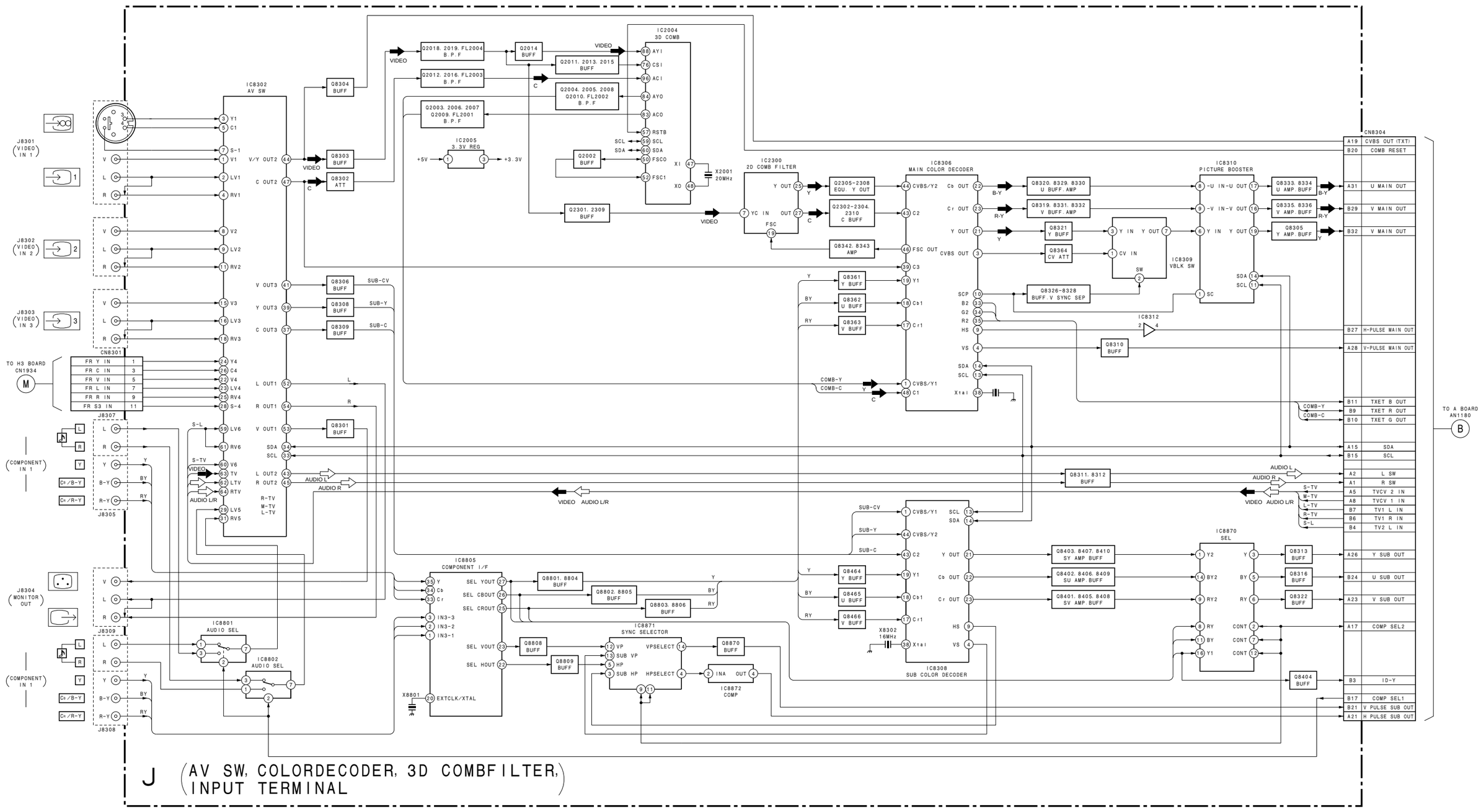
(5) CR, CG, CB, E, AND VM BOARDS BLOCK DIAGRAMS



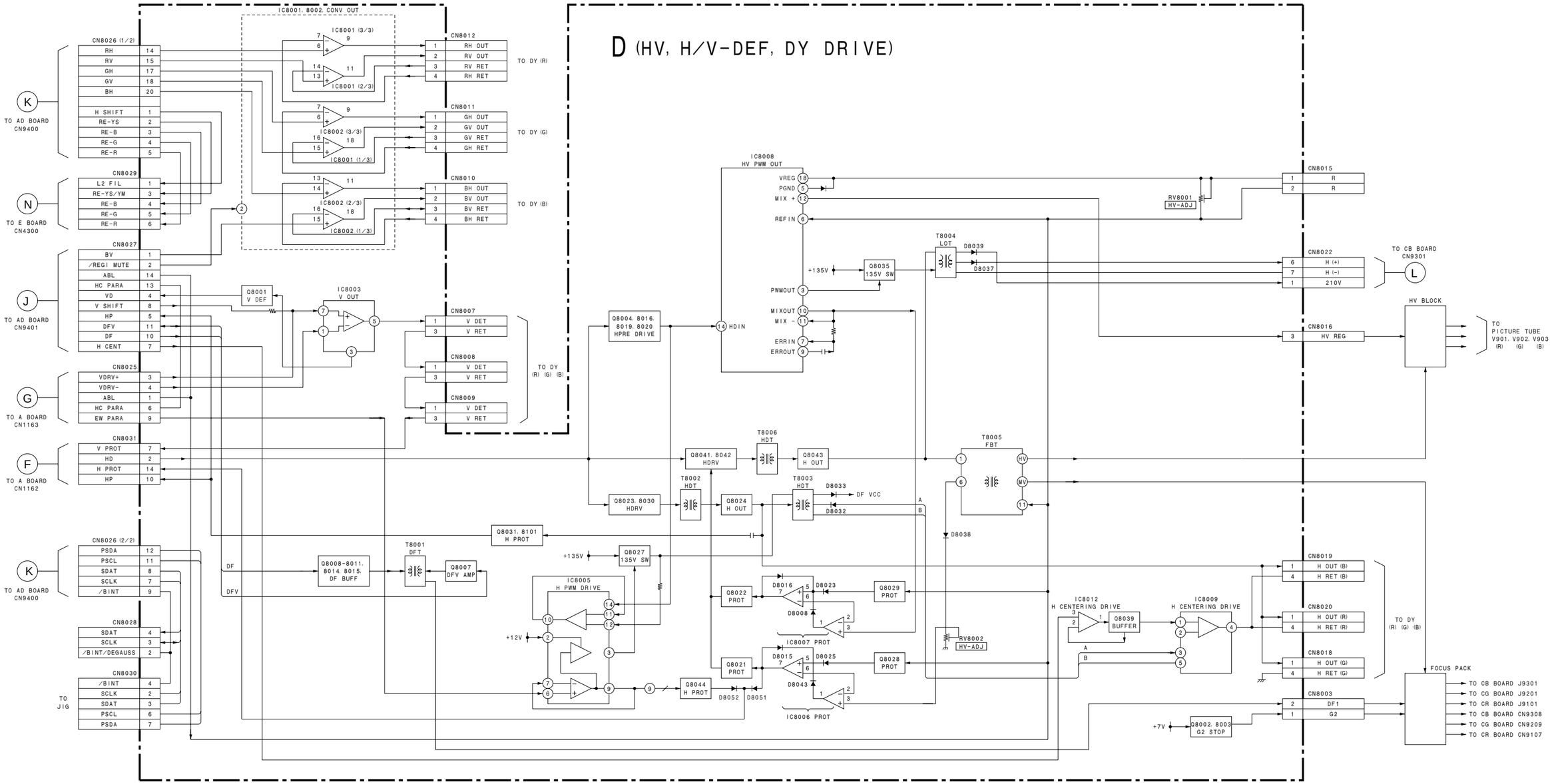
(6) G AND H1 BOARDS BLOCK DIAGRAMS



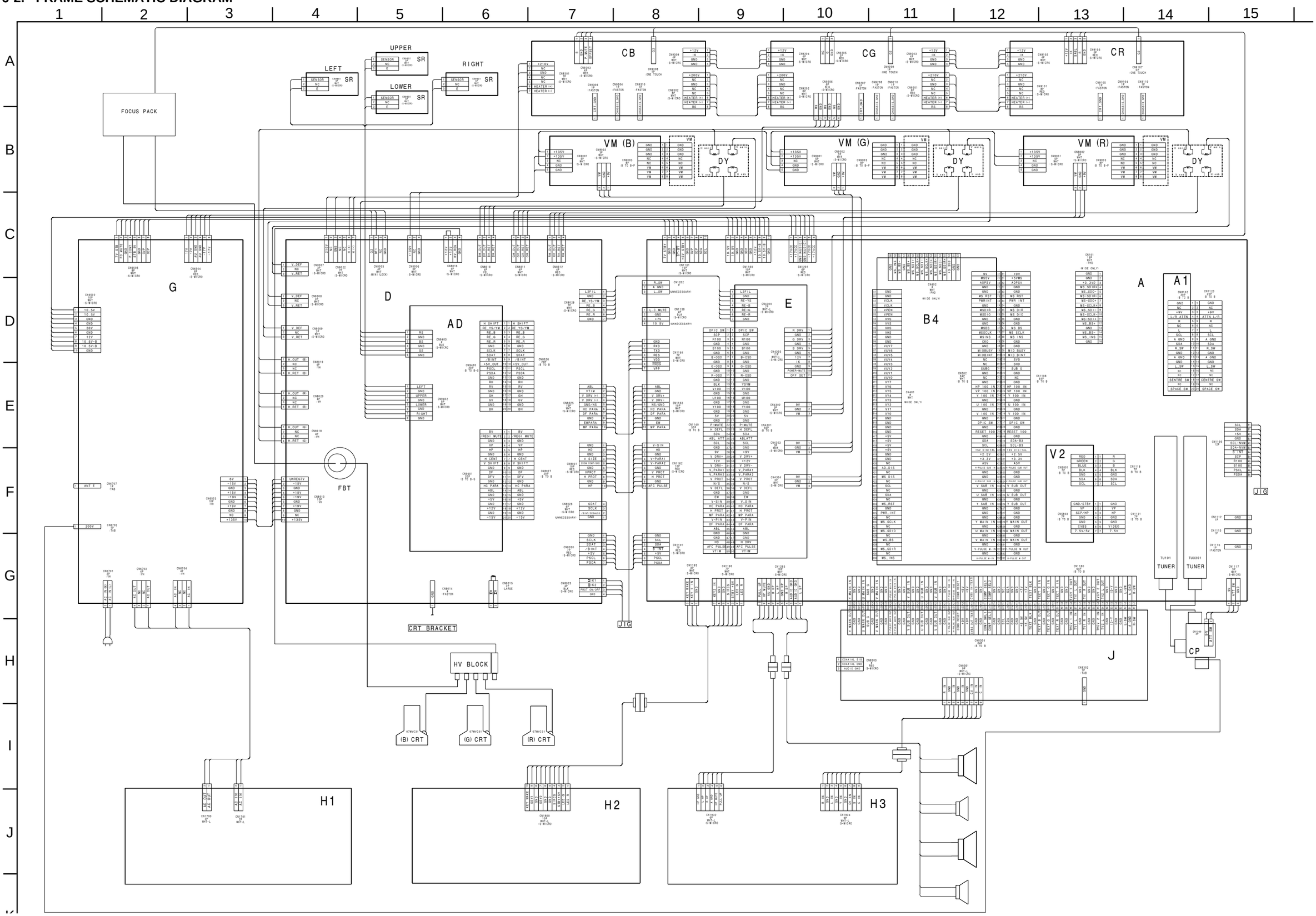
(7) J BOARD BLOCK DIAGRAM



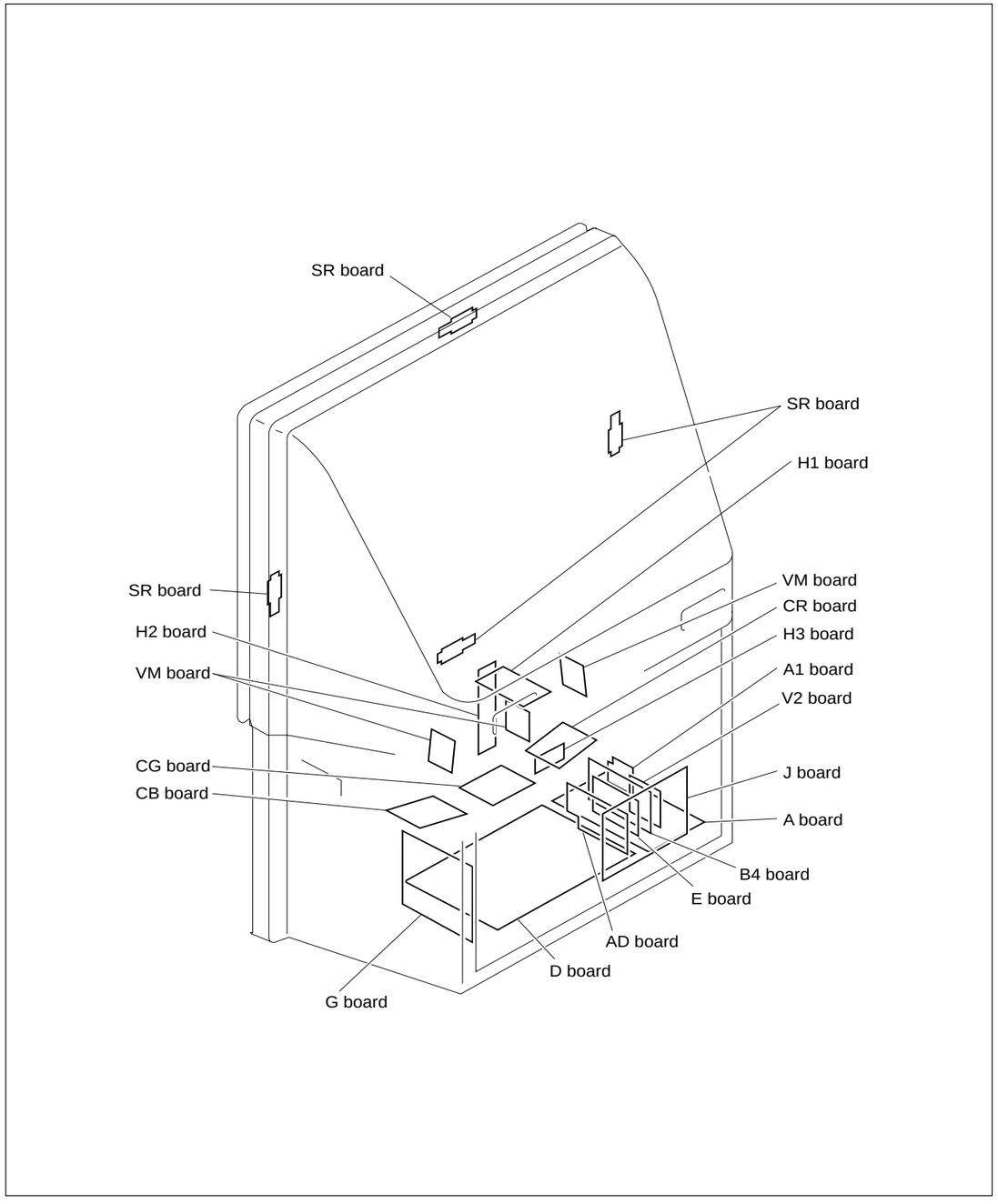
(8) D BOARD BLOCK DIAGRAM



6-2. FRAME SCHEMATIC DIAGRAM



6-3. CIRCUIT BOARDS LOCATION



6-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- NO MARK: Common
- < > : SECAM
- ( ) : NTSC 3.58 MHz
- Circled numbers are waveform references.
- : B + bus.
- : B – bus.
- ⇨ : Signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Divided circuit diagram

  Schematic diagrams of A, D, and E boards are divided into serveral pieces. Information to where the line is to be connected is printed at the end of wach line.
  For example, [TO A1/5, A2/5_1] means the line is connected to Ref. No. 1 of A(1/5) and A(2/5) schematic diagrams.

TO A1/5, A2/5_1
→ Ref. No.
→ Circuit diagram division code.

Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base Emitter	
②	Transistor	—	Collector / Base Emitter	
③	Diode	⊓	Cathode – Anode	
④	Diode	T	Cathode / Anode (NC)	
⑤	Diode	—	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode Cathode	
⑦	Diode	—	Common / Anode Cathode	
⑧	Diode	T	Common / Anode Anode	
⑨	Diode	—	Common / Anode Anode	
⑩	Diode	T	Common / Cathode Cathode	
⑪	Diode	—	Common / Cathode Cathode	
⑫	Diode	|	Anode Anode Cathode / Cathode Anode Anode	
⑬	Transistor (FET)	|	Drain / Source Gate	
⑭	Transistor (FET)	⊢	Drain / Source Gate	
⑮	Transistor (FET)	|	□ Source □ Drain □ Gate	
⑯	Transistor	|	□ Emitter □ Collector □ Base	
⑰	Transistor	⊣⊢	C2 B1 E1 / E2 B2 C1	
⑱	Transistor	⊣⊢	C1 B2 E2 / E1 B1 C2	
⑲	Transistor	▬	C1 B2 E2 / E1 B1 C2	
⑳	Transistor	▬	C1 B2 E2 / E1 B1 C2	
㉑	Transistor	▬	E2 B1 E1 / C2 C1(B2)	
㉒	Transistor	▬	(B2) B1 E1 E2 / C1 C2	
㉓	Transistor	▬	(B2) E2 E1 B1 / C2 C1	
–	Discrete semiconductot			

Ver.1.5

(Chip semiconductors that are not actually used are included.)

(1) A Board

A (1/3)
(SYSTEM CONTROL)

A (2/3) (TUNER)

A (3/3)
(AUDIO AMP)

*MARK LIST	KP-FS43M90	KP-FS53M90
C1256	0.33	0.47
C1257	1	-
C1268	0.33	0.47
C1269	1	-
C1297	0.33	0.56
C1298	0.33	0.56
L1202	100UH	65UH
L1203	100UH	65UH
R1243	10	-
R1251	10	-

-:NO MOUNT

B-SS893<CH.>-A..-P3

A [SYSTEM CONTROL, AUDIO AMP,TUNER]

• A BOARD SEMICONDUCTOR LOCATION

IC

	(Component Side)	(Conductor Side)
IC001	A-6	
IC002	A-6	
IC003	B-6	
IC005	A-7	A-1
IC100	C-5	
IC1203	D-1	
IC1204	B-7	B-1
IC2200	C-7	
IC2600	C-4	C-4
IC2601	C-5	C-3
IC2602	C-6	C-2
IC2603	D-4	D-4
IC2604	C-5	C-4
IC2605	C-1	C-6
IC2607	C-3	C-5

TRANSISTER

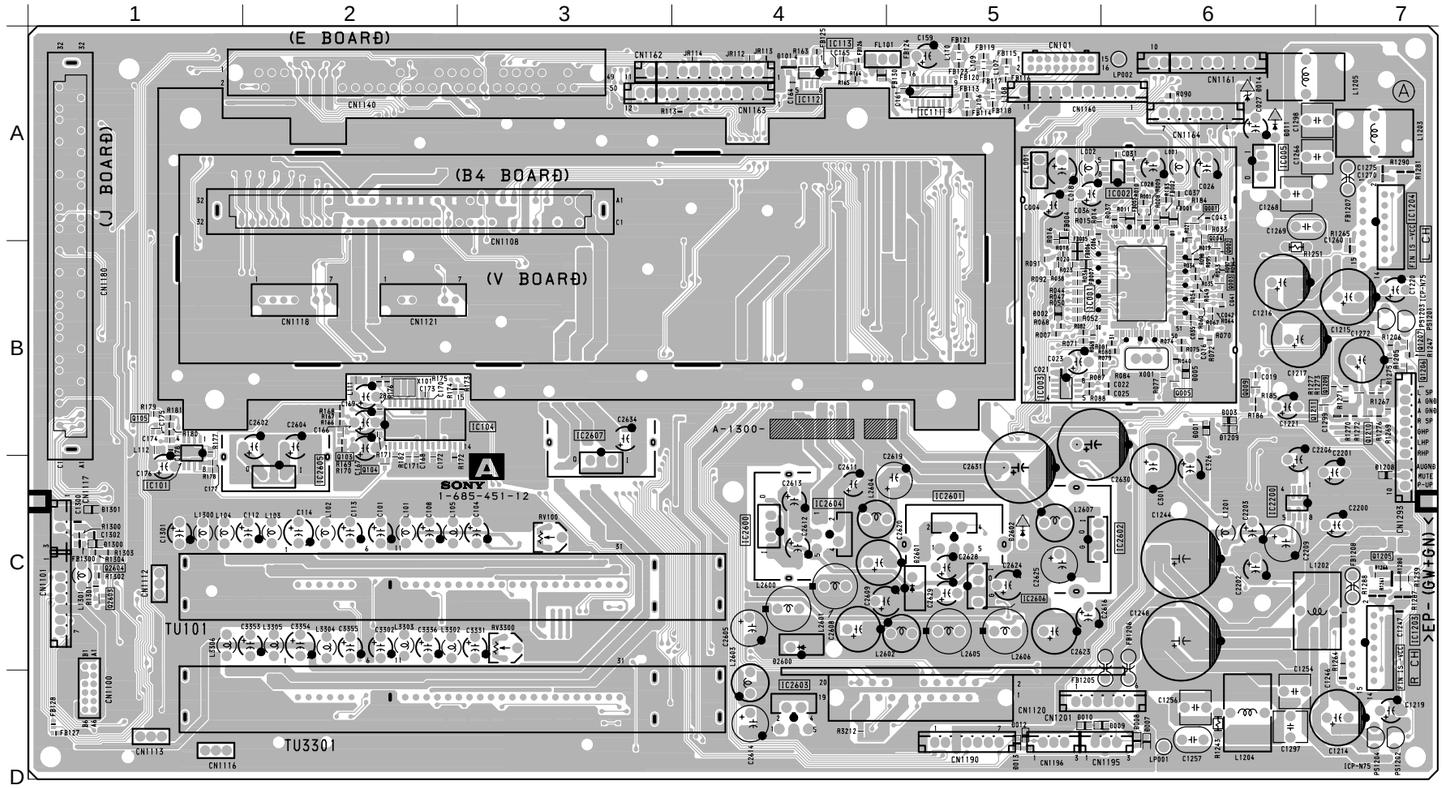
	(Component Side)	(Conductor Side)	*
Q001	B-6		②
Q002	B-6		②
Q003	B-6		②
Q004	B-6		②
Q005	B-6		②
Q006	A-2		①
Q007	A-2		①
Q008	B-2		①
Q009	B-7		②
Q101	C-5		①
Q105	C-1		②
Q301	C-2		①
Q313	C-2		①
Q1205	C-7		②
Q1206	B-7		②
Q1207	B-7		②
Q1209	B-7		②
Q1210	C-7		②
Q1211	C-7		②
Q2200	C-1		①
Q2201	C-2		①
Q2603	D-1		②
Q2604	C-1		②
Q3300	D-5		①

DIODE

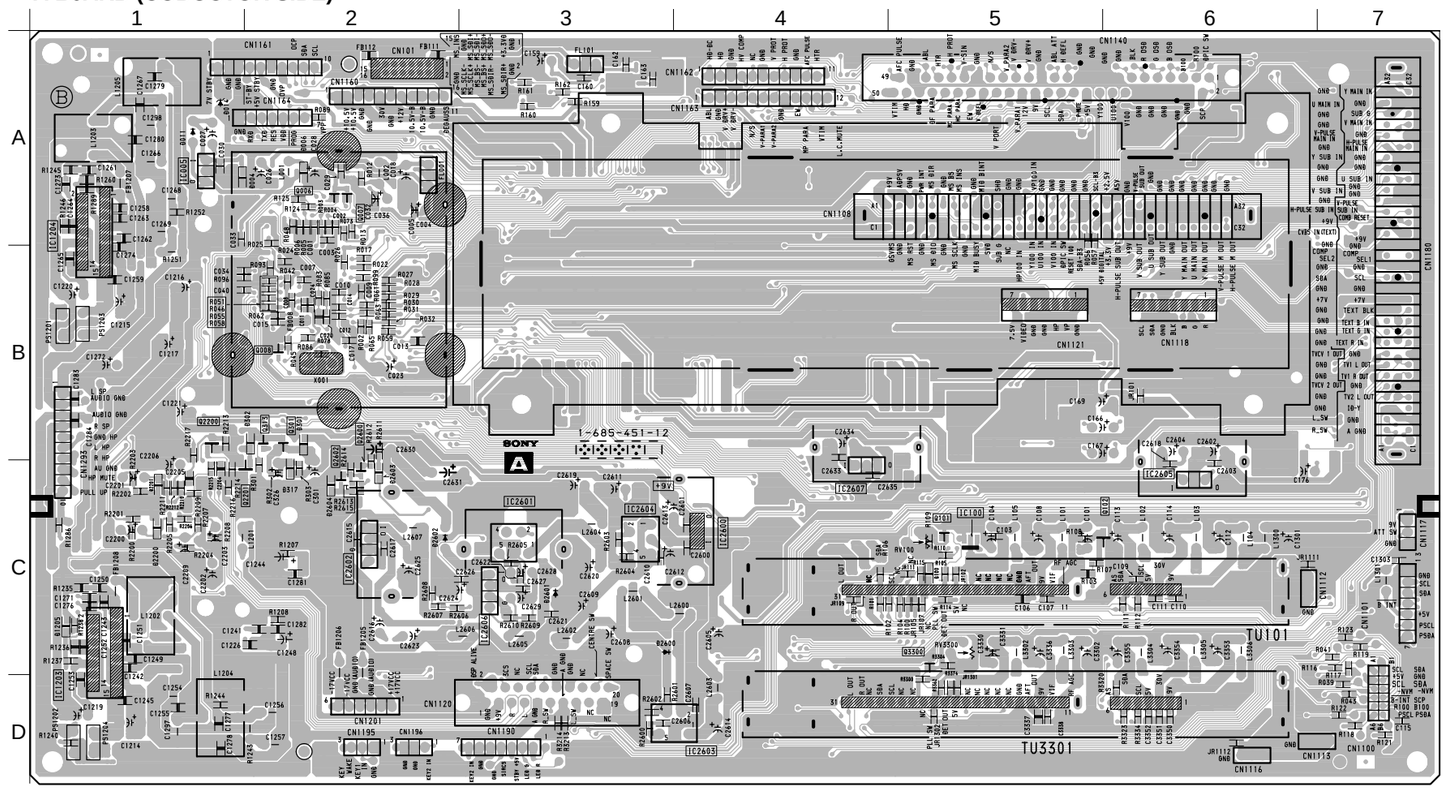
	(Component Side)	(Conductor Side)	*
D001	C-6		③
D002	A-6		③
D003	C-6		③
D004	A-2		③
D007	D-6		③
D009	D-6		③
D011	A-7	A-1	-
D013	D-5	D-3	-
D014	A-7	A-1	-
D100	C-5		③
D301	C-2		③
D302	C-2		③
D317	C-2		③
D1205	D-1		③
D1208	C-7		③
D1209	C-6		③
D1300	C-1		③
D1301	C-1		③
D2200	C-1		③
D2201	C-1		③
D2600	D-4	D-4	-
D2601	C-5	C-3	-
RV100	D-3	D-5	-
RV3300	C-3	C-5	-

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

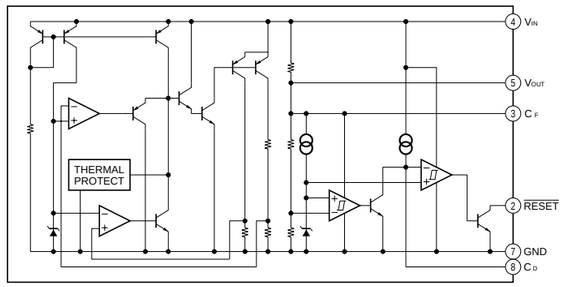
— A BOARD (COMPONENT SIDE) —



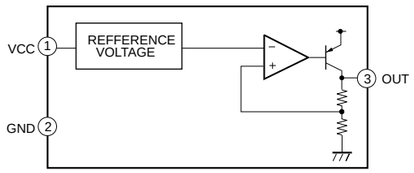
— A B0ARD (CODUCTOR SIDE)—



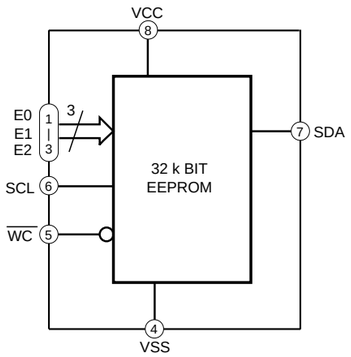
- **A(1/3) BOARD IC002 : MM1482BFBE**



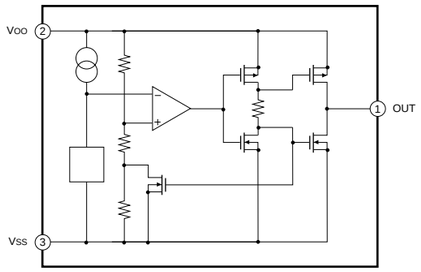
- **A(1/3) BOARD IC005, 2600, 2605, 2607 : BA05FP**



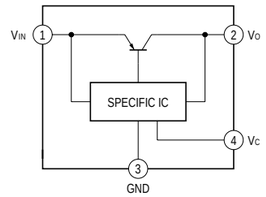
- **A(1/3) BOARD IC003 : M24C32-WMN6T(A)**



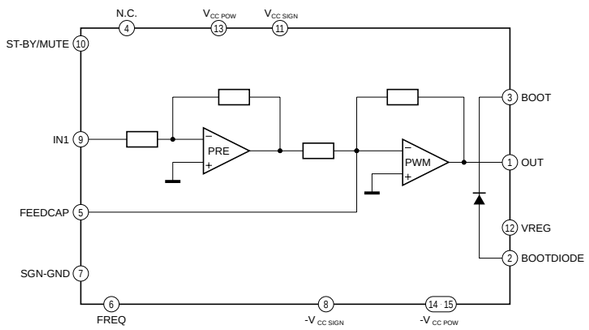
- **A(2/3) BOARD IC100 : S-80743AL-A7-T1**



- **A(2/3) BOARD IC2602 : PQ05RD1B**
- **A(2/3) BOARD IC2604 : PQ5EV3**



- **A(3/3) BOARD IC1203, 1204 : TDA7481**



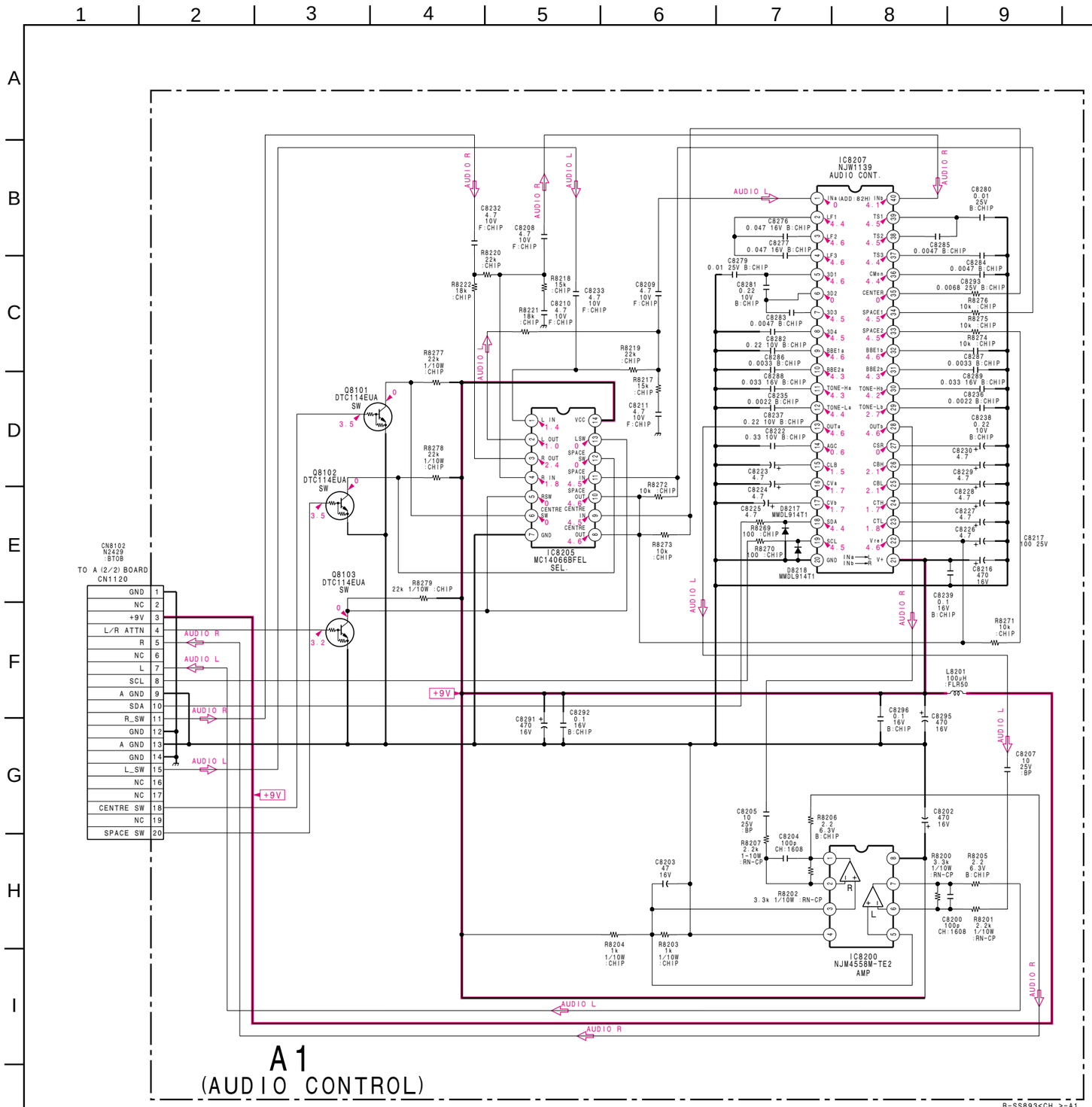
•A(1/3)BOARD WAVEFORMS

① NTSC 1.0VP-P(H)	① SECAM 1.0VP-P(V)	① PAL 1.2VP-P(H)
② PAL 1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)	③ PAL 1.1VP-P(H) NTSC/SECAM 0.8VP-P(H)	④ NTSC 1.0VP-P(H)
④ SECAM 1.0VP-P(H)	④ PAL 1.3VP-P(H)	⑤ PAL 1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)
⑥ PAL 1.1VP-P(H) NTSC/SECAM 0.84VP-P(H)		

•A(2/3)BOARD WAVEFORMS

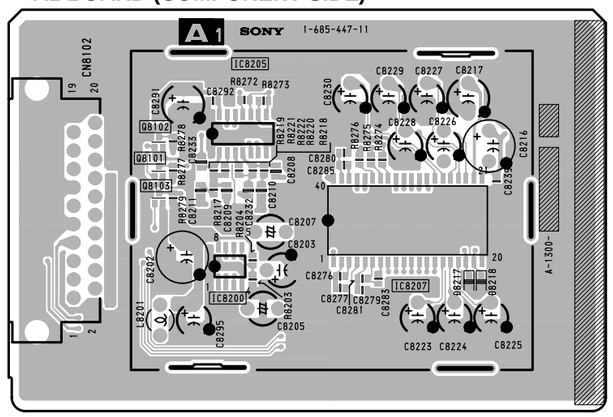
① NTSC 1.0VP-P(H)	① SECAM 1.0VP-P(H)	① PAL 1.3VP-P(H)
②	② PAL 1.1VP-P(H) NTSC/SECAM 0.84VP-P(H)	② 1.3VP-P(H)

(2) A1 Board

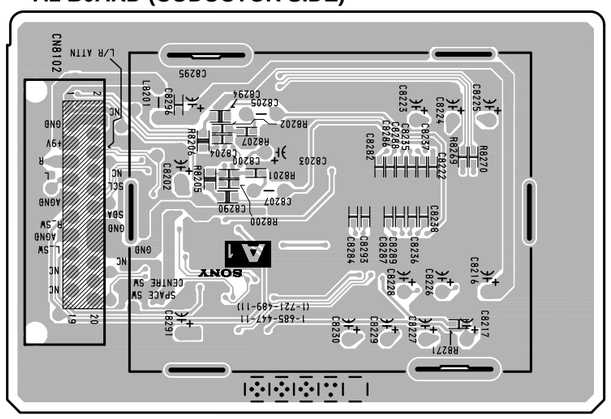

IC8207
NJW1139
AUDIO CONT.
IC8205
MC14066BFEL
SEL.
IC8200
NJM4558M-TE2
AMP
CN8102
N2429
:BTOB
TO A (2/2) BOARD
CN1120
GND 1
NC 2
+9V 3
L/R ATTN 4
R 5
NC 6
L 7
SCL 8
A GND 9
SDA 10
R_SW 11
GND 12
A GND 13
GND 14
L_SW 15
NC 16
NC 17
CENTRE SW 18
NC 19
SPACE SW 20
Q8101 DTC114EUA SW
Q8102 DTC114EUA SW
Q8103 DTC114EUA SW
D8217 MMDL914T1
D8218 MMDL914T1
AUDIO R
AUDIO L
+9V
A1
(AUDIO CONTROL)
B-SS893<CH.>-A1.

A1 [AUDIO CONTROL]

— A1 BOARD (COMPONENT SIDE) —



— A1 B0ARD (CODUCTOR SIDE) —

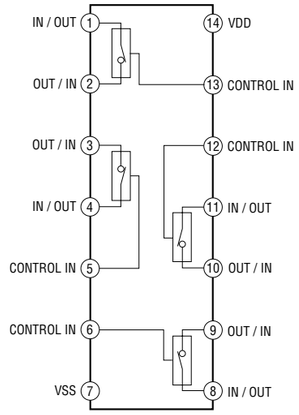


A1 BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

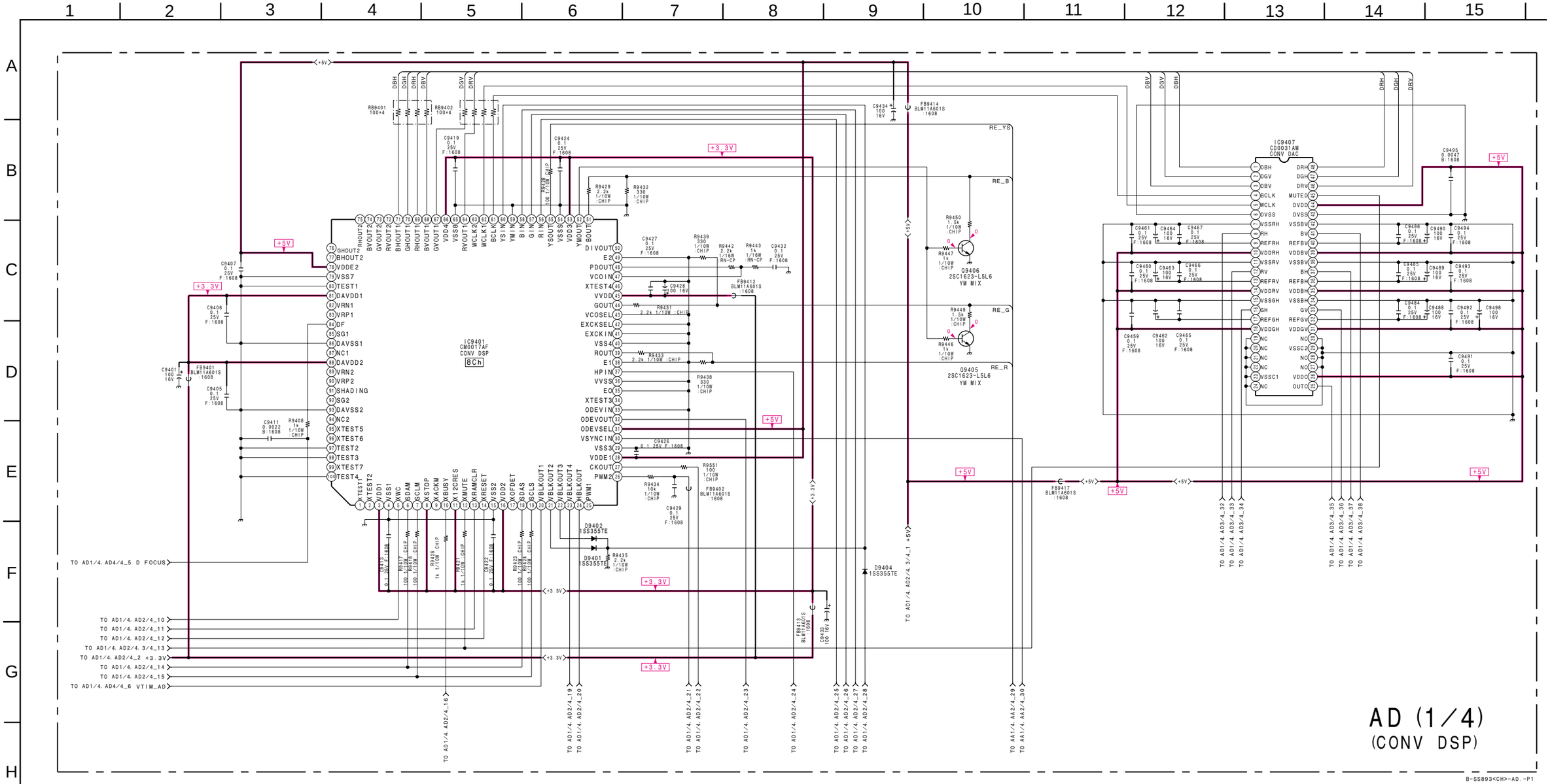
Ref.	∗
D8217	②
Q8101-Q8103	②
Q8218	③

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

- **A1 BOARD IC8205 : MC14066BF**

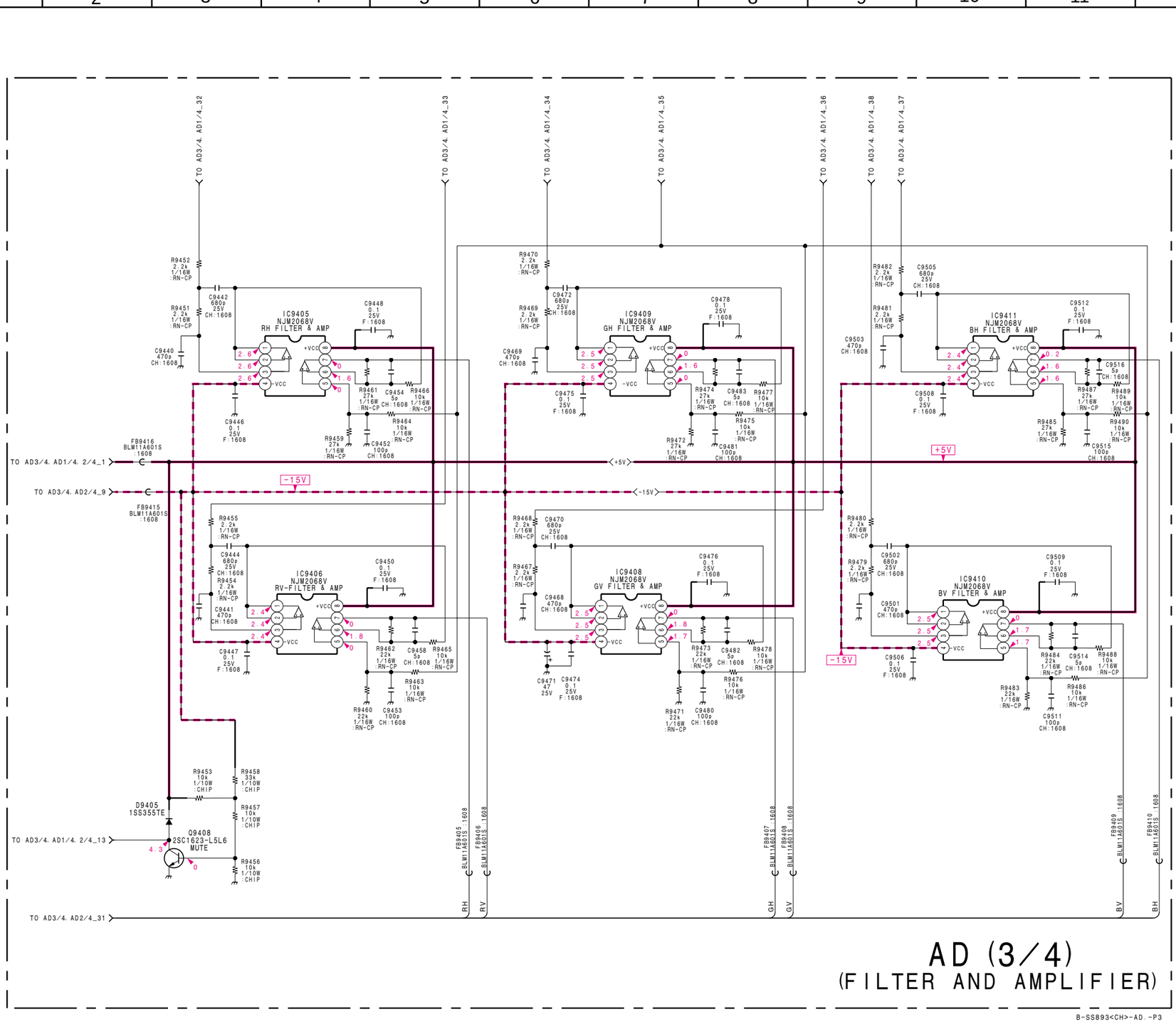


(3) AD Board


IC9401
CM0017AF
CONV DSP
8Ch
IC9407
CD0031AM
CONV DAC
Q9406
2SC1623-L5L6
YM MIX
Q9405
2SC1623-L5L6
YM MIX
RE_YS
RE_B
RE_G
RE_R
+5V
+3.3V
TO AD1/4. AD4/4_5 D FOCUS
TO AD1/4. AD2/4_10
TO AD1/4. AD2/4_11
TO AD1/4. AD2/4_12
TO AD1/4. AD2/4. 3/4_13
TO AD1/4. AD2/4_2 +3.3V
TO AD1/4. AD2/4_14
TO AD1/4. AD2/4_15
TO AD1/4. AD4/4_6 VTIM_AD
TO AD1/4. AD2/4_16
TO AD1/4. AD2/4_19
TO AD1/4. AD2/4_20
TO AD1/4. AD2/4_21
TO AD1/4. AD2/4_22
TO AD1/4. AD2/4_23
TO AD1/4. AD2/4_24
TO AD1/4. AD2/4_25
TO AD1/4. AD2/4_26
TO AD1/4. AD2/4_27
TO AD1/4. AD2/4_28
TO AA1/4. AA2/4_29
TO AA1/4. AA2/4_30
TO AD1/4. A03/4_32
TO AD1/4. A03/4_33
TO AD1/4. A03/4_34
TO AD1/4. A03/4_36
TO AD1/4. A03/4_37
TO AD1/4. A03/4_38
D9402 1SS355TE
D9401 1SS355TE
D9404 1SS355TE
AD (1/4)
(CONV DSP)
B-SS893<CH>-AD.-P1

AD (2/4)
(PJED-CPU)

B-SS893<CH>-AD.-P2



AD (3/4)
(FILTER AND AMPLIFIER)

B-SS893<CH>-AD.-P3

AD (4/4)
(PHOTO SENSOR BUFFER)

CN9402
8P
WHT
: S-MICRO
TO SR BOARD
CN9901

LEFT	1
GND	2
UPPER	3
GND	4
LOWER	5
GND	6
RIGHT	7
GND	8

VD9404 7.5V :CHIP
VD9405 7.5V :CHIP
VD9406 7.5V :CHIP
VD9407 7.5V :CHIP

R9568 0 :1608
C9524 0.0039 B:1608
R9497 680k 1/10W :CHIP
C9518 0.1 25V F:1608
R9495 0 :1608
R9569 470k 1/10W :CHIP
C9521 0.0039 B:1608
R9570 0 :1608
C9523 0.0039 B:1608
R9496 470k 1/10W :CHIP
C9517 0.1 25V F:1608
R9571 0 :1608
R9494 680k 1/10W :CHIP
C9520 0.0039 B:1608
C9525 0.1 25V F:1608

IC9414 NJM4558V PHOTO SENSOR BUFFER
IC9413 NJM4558V PHOTO SENSOR BUFFER

R9512 4.7k 1/10W :CHIP
R9511 100k 1/10W :CHIP
R9527 1k 1/10W :CHIP
C9528 0.1 25V F:1608
R9516 1k 1/10W :CHIP
R9504 4.7k 1/10W :CHIP
R9505 68k 1/10W :CHIP
C9532 0.1 25V F:1608
R9510 4.7k 1/10W :CHIP
R9509 68k 1/10W :CHIP
C9527 0.1 25V F:1608
R9515 1k 1/10W :CHIP
R9520 1k 1/10W :CHIP
R9502 4.7k 1/10W :CHIP
R9503 100k 1/10W :CHIP
C9531 0.1 25V F:1608

IC9416 NJM4558V PHOTO SENSOR BUFFER
IC9415 NJM4558V PHOTO SENSOR BUFFER

−15V
+12V

C9549 0.001 25V CH:1608
R9546 15k 1/16W :RN-CP
R9548 100k 1/16W :RN-CP
R9549 18k 1/16W :RN-CP
C9552 0.01 F:1608
C9546 0.1 25V F:1608
IC9420 NJM2068V DF FILTER
C9548 100p CH:1608
C9550 0.1 25V F:1608
R9540 2.7k 1/16W :RN-CP
R9542 8.2k 1/16W :RN-CP
C9547 390p CH:1608
R9539 3.9k 1/16W :RN-CP
R9541 3.3k 1/10W :CHIP
R9545 33k 1/10W :CHIP

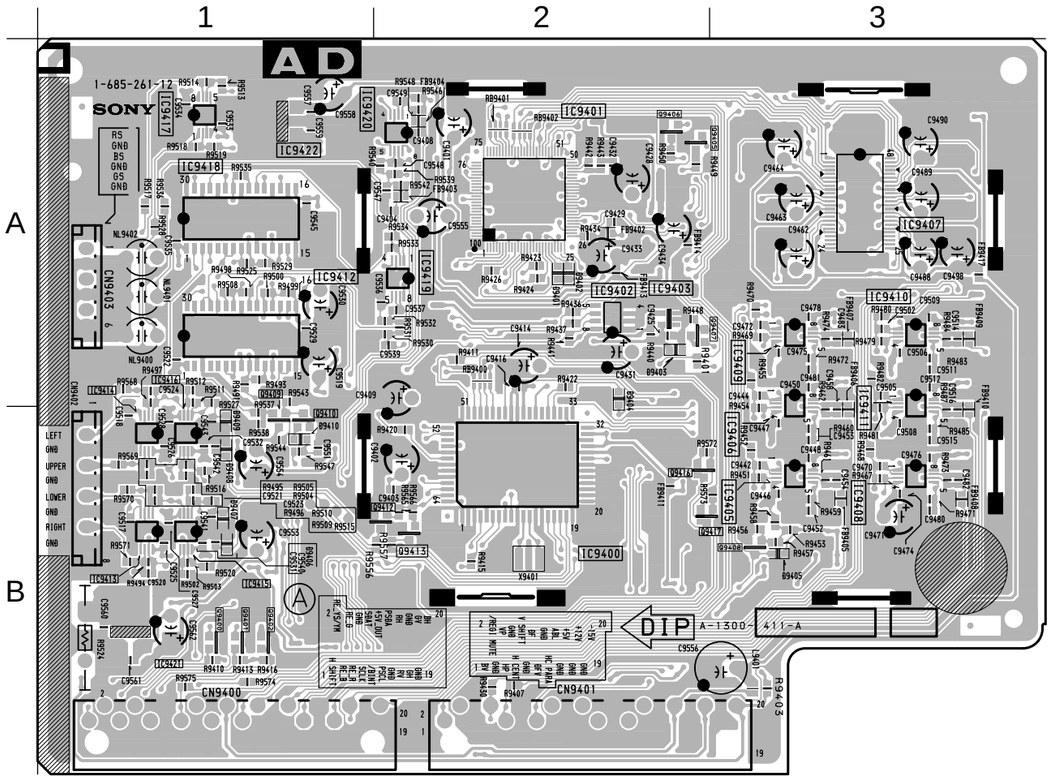
FB9404 BLM11A601S :1608
C9408 22p CH:1608
FB9403 BLM11A601S :1608
C9404 22p CH:1608
C9555 47 25V
R9550 22k 1/10W :CHIP
Q9411 2SC1623-L5L6 VBLK
C9543 0.1 25V F:1608
D9409 UDZS-5.1B
C9542 0.1 25V F:1608
D9408 UDZS-5.1B
C9541 0.1 25V F:1608
D9407 UDZS-5.1B
C9540 0.1 25V F:1608
D9406 UDZS-5.1B
C9553 47 25V
C9554 47 25V

DF_V
DF
D FOCUS
TO AD4/4, AD1/4_5
VTIM_AD
TO AD4/4, AD1/4_6
SEN_LE
SEN_U
SEN_LO
SEN_R
TO AD4/4, AD2/4_8
TO AD4/4, AD2/4_7
−15V TO AD4/4, AD2/4_4
+12V TO AD4/4, AD2/4_3

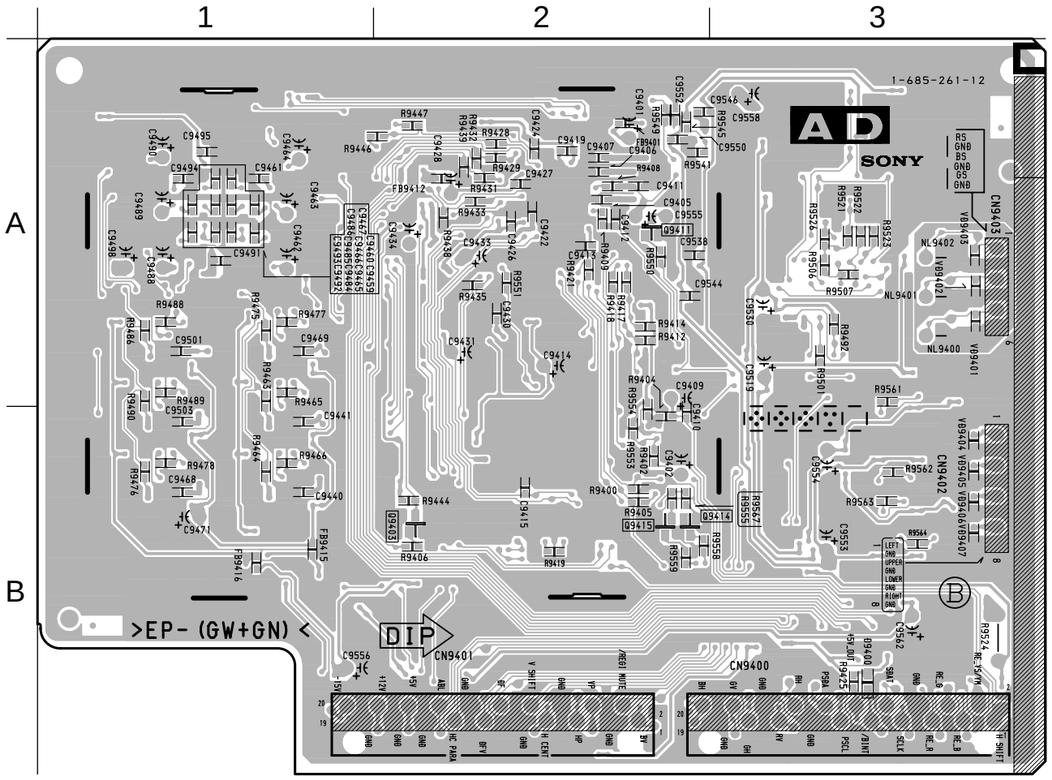
B-SS893<CH.>-AD.-P4

AD [CONV DSP, PJED-CPU, PHOTO SENSOR]

— AD BOARD (COMPONENT SIDE) —



— AD BOARD (CONDUCTOR SIDE) —



- **AD BOARD SEMICONDUCTOR LOCATION**

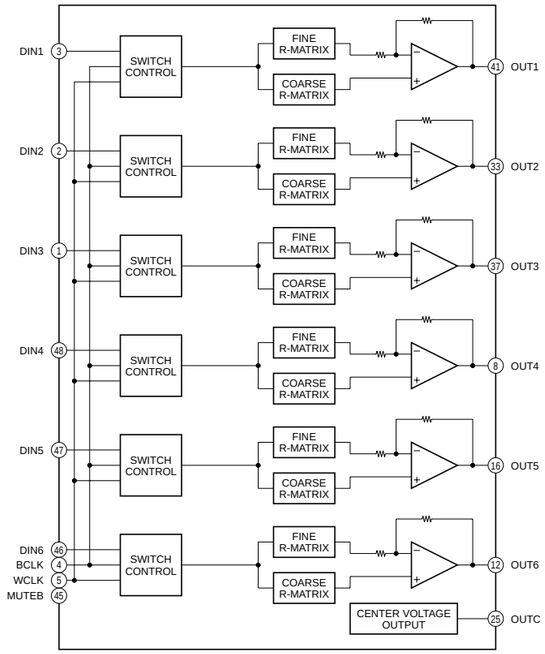
IC (Component Side)	(Conductor Side)
IC9400	B-2
IC9401	A-2
IC9402	A-2
IC9403	A-2
IC9405	B-3
IC9406	A-3
IC9407	A-3
IC9408	B-3
IC9409	A-3
IC9410	A-3
IC9411	A-3
IC9413	B-1
IC9414	B-1
IC9415	B-1
IC9416	B-1
IC9420	A-2
IC9422	A-1

TRANSISTORQ (Component Side)	(Conductor Side)	*
Q9400	B-1	②
Q9401	B-1	②
Q9402	B-1	②
Q9403	B-2	①
Q9405	A-2	②
Q9406	A-2	②
Q9407	A-2	②
Q9408	B-3	②
Q9411	A-2	①
Q9412	B-2	②
Q9413	B-2	②
Q9414	B-2	①
Q9415	B-2	①
Q9416	B-2	②
Q9417	B-2	②

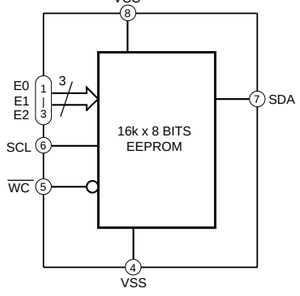
DIODE (Component Side)	(Conductor Side)	*
D9400	B-3	③
D9401	A-2	③
D9402	A-2	③
D9404	A-2	③
D9405	B-3	③
D9406	B-1	③
D9407	B-1	③
D9408	B-1	③
D9409	B-1	③

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

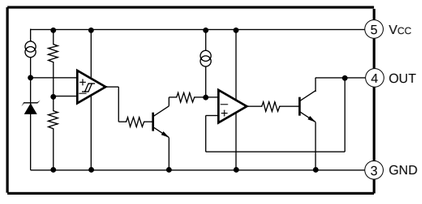
- **AD(1/4) BOARD IC9407 : CD0031AM**



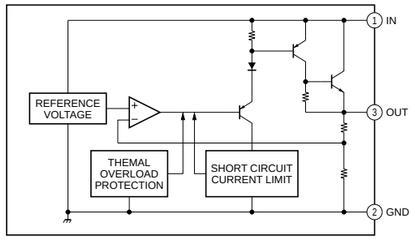
- **AD(2/4) BOARD IC9402 : M24128-BWMN6T**



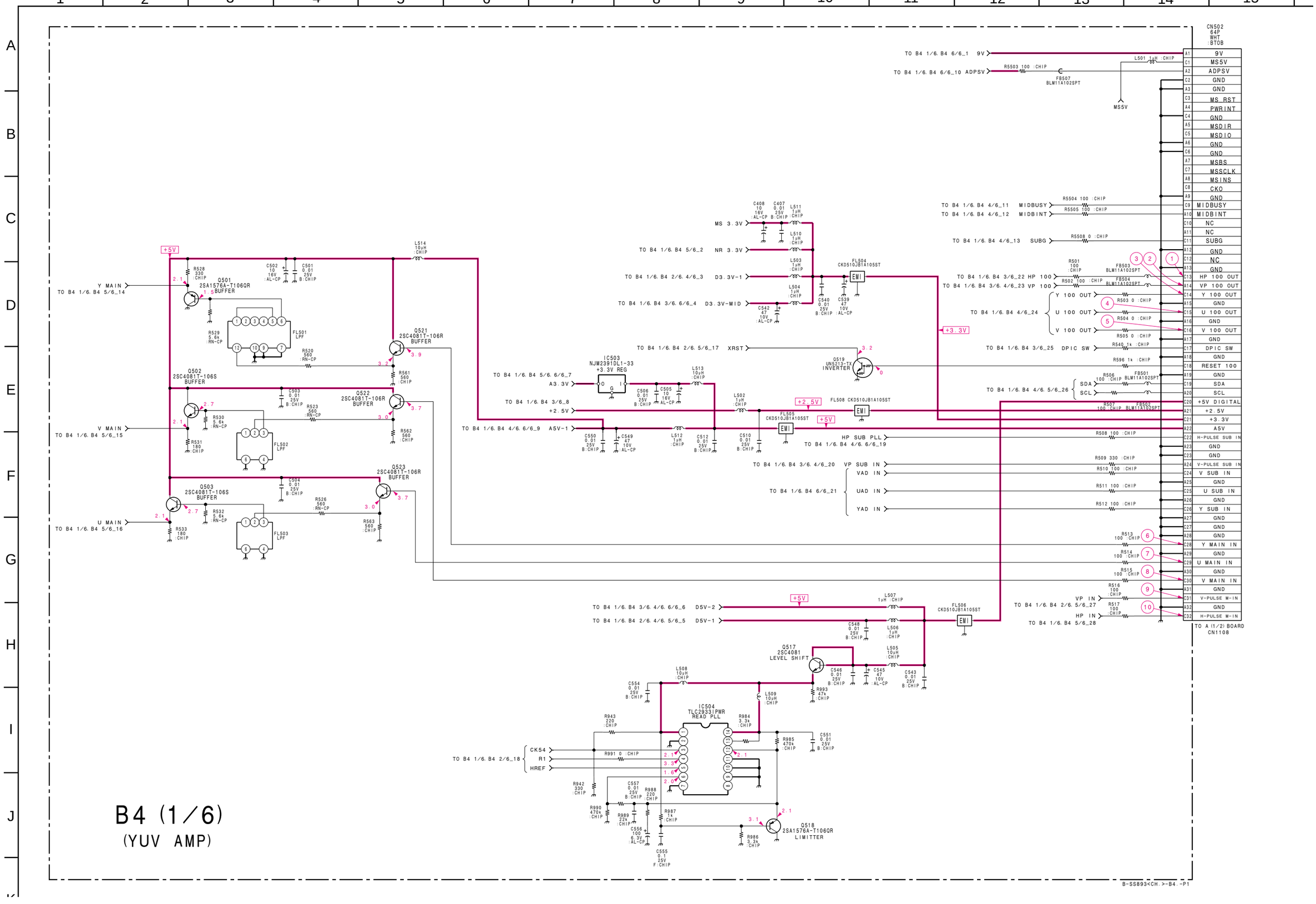
- **AD(2/4) BOARD IC9403 : PST9143NL**

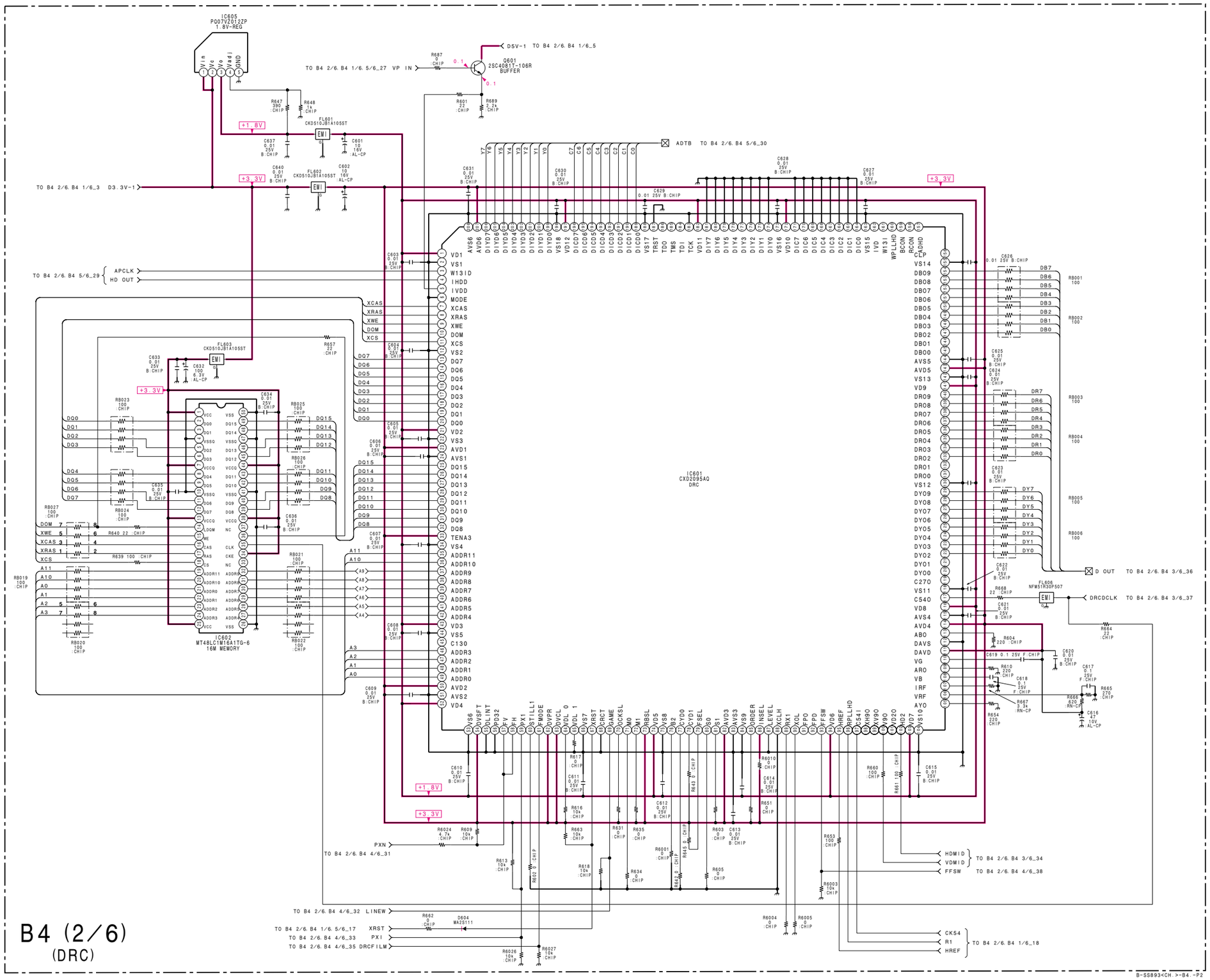


- **AD(2/4) BOARD IC9422 : NJM2391DL1-33(TE1)**



(4) B4 Board

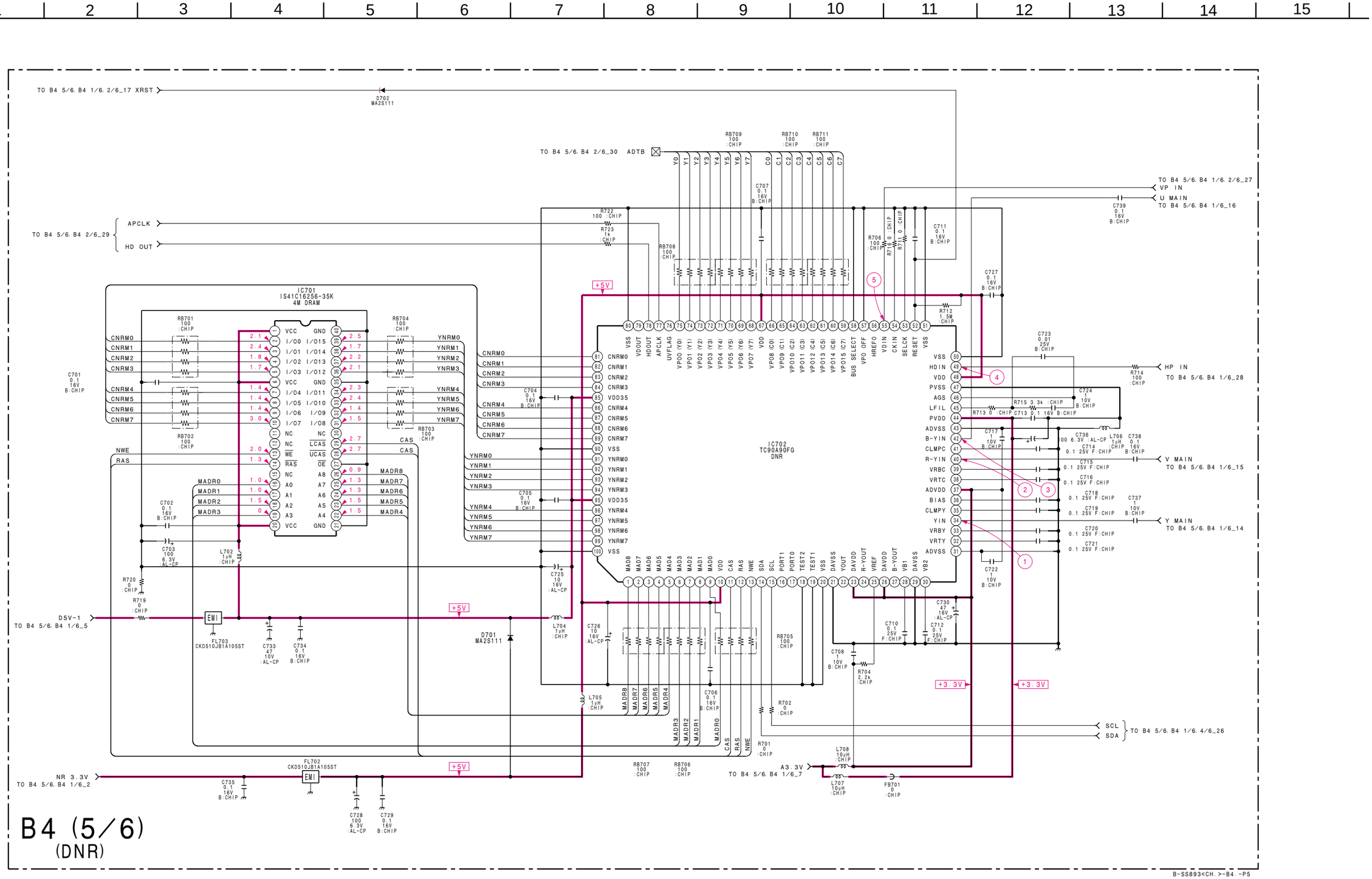

B4 (1/6)
(YUV AMP)
CN502 64P WHT :BTOB
A1 9V
C1 MS5V
A2 ADPSV
C2 GND
A3 GND
C3 MS RST
A4 PWRINT
C4 GND
A5 MSDIR
C5 MSDIO
A6 GND
C6 GND
A7 MSBS
C7 MSSCLK
A8 MSINS
C8 CKO
A9 GND
C9 MIDBUSY
A10 MIDBINT
C10 NC
A11 NC
C11 SUBG
A12 GND
C12 NC
A13 GND
C13 HP 100 OUT
A14 VP 100 OUT
C14 Y 100 OUT
A15 GND
C15 U 100 OUT
A16 GND
C16 V 100 OUT
A17 GND
C17 DPIC SW
A18 GND
C18 RESET 100
A19 GND
C19 SDA
A20 SCL
C20 +5V DIGITAL
A21 +2.5V
C21 +3.3V
A22 A5V
C22 H-PULSE SUB IN
A23 GND
C23 GND
A24 V-PULSE SUB IN
C24 V SUB IN
A25 GND
C25 U SUB IN
A26 GND
C26 Y SUB IN
A27 GND
C27 GND
A28 GND
C28 Y MAIN IN
A29 GND
C29 U MAIN IN
A30 GND
C30 V MAIN IN
A31 GND
C31 V-PULSE M-IN
A32 GND
C32 H-PULSE M-IN
TO A (1/2) BOARD CN1108
TO B4 1/6. B4 6/6_1 9V
TO B4 1/6. B4 6/6_10 ADPSV
TO B4 1/6. B4 4/6_11 MIDBUSY
TO B4 1/6. B4 4/6_12 MIDBINT
TO B4 1/6. B4 4/6_13 SUBG
TO B4 1/6. B4 3/6_22 HP 100
TO B4 1/6. B4 3/6. 4/6_23 VP 100
TO B4 1/6. B4 4/6_24
TO B4 1/6. B4 3/6_25 DPIC SW
TO B4 1/6. B4 4/6. 5/6_26 SDA SCL
TO B4 1/6. B4 3/6. 4/6_20 VP SUB IN
TO B4 1/6. B4 6/6_21 VAD IN UAD IN YAD IN
TO B4 1/6. B4 2/6. 4/6. 5/6_27 VP IN
TO B4 1/6. B4 5/6_28 HP IN
TO B4 1/6. B4 4/6. 6/6_19 HP SUB PLL
TO B4 1/6. B4 4/6. 6/6_9 A5V-1
TO B4 1/6. B4 3/6_8 +2.5V
TO B4 1/6. B4 5/6. 6/6_7 A3.3V
TO B4 1/6. B4 2/6. 5/6_17 XRST
TO B4 1/6. B4 3/6. 6/6_4 D3.3V-MID
TO B4 1/6. B4 2/6. 4/6_3 D3.3V-1
TO B4 1/6. B4 5/6_2 NR 3.3V
MS 3.3V
TO B4 1/6. B4 3/6. 4/6. 6/6_6 D5V-2
TO B4 1/6. B4 2/6. 4/6. 5/6_5 D5V-1
TO B4 1/6. B4 2/6_18 CK54 R1 HREF
Y MAIN
TO B4 1/6. B4 5/6_14
V MAIN
TO B4 1/6. B4 5/6_15
U MAIN
TO B4 1/6. B4 5/6_16
Q501 2SA1576A-T106QR BUFFER
Q502 2SC4081T-106S BUFFER
Q503 2SC4081T-106S BUFFER
Q521 2SC4081T-106R BUFFER
Q522 2SC4081T-106R BUFFER
Q523 2SC4081T-106R BUFFER
FL501 LPF
FL502 LPF
FL503 LPF
FL504 CKD510JB1A105ST
FL505 CKD510JB1A105ST
FL506 CKD510JB1A105ST
FL508 CKD510JB1A105ST
IC503 NJM2391DL1-33 +3.3V REG
IC504 TLC2933IPWR READ PLL
Q517 2SC4081 LEVEL SHIFT
Q518 2SA1576A-T106QR LIMITTER
Q519 UN5213-TX INVERTER
FB501 BLM11A102SPT
FB503 BLM11A102SPT
FB504 BLM11A102SPT
FB505 BLM11A102SPT
FB507 BLM11A102SPT
MS5V
+5V
+3.3V
+2.5V
EMI
B-SS893<CH.>-B4.-P1


IC605
PQ07VZ012ZP
1.8V-REG
Vin
Vc
Vo
Vadj
GND
Q601
2SC4081T-106R
BUFFER
D5V-1 TO B4 2/6. B4 1/6_5
TO B4 2/6. B4 1/6. 5/6_27 VP IN
+1.8V
+3.3V
EMI
ADTB TO B4 2/6. B4 5/6_30
TO B4 2/6. B4 1/6_3 D3.3V-1
TO B4 2/6. B4 5/6_29
APCLK
HD OUT
IC601
CXD2095AQ
DRC
IC602
MT48LC1M16A1TG-6
16M MEMORY
D OUT TO B4 2/6. B4 3/6_36
DRCDCLK TO B4 2/6. B4 3/6_37
HDMID
VDMID
FFSW
TO B4 2/6. B4 3/6_34
TO B4 2/6. B4 4/6_38
CK54
R1
HREF
TO B4 2/6. B4 1/6_18
PXN
TO B4 2/6. B4 4/6_31
TO B4 2/6. B4 4/6_32 LINEW
TO B4 2/6. B4 1/6. 5/6_17 XRST
TO B4 2/6. B4 4/6_33 PXI
TO B4 2/6. B4 4/6_35 DRCFILM
B4 (2/6)
(DRC)
B-SS893<CH.>-B4.-P2

B4 (3/6)
(MID)

B4 (4/6)

(D/A CONVERTER, MID ENGINE)


TO B4 5/6. B4 1/6. 2/6_17 XRST
D702 MA2S111
TO B4 5/6. B4 2/6_30 ADTB
APCLK
HD OUT
TO B4 5/6. B4 2/6_29
IC701 IS41C16256-35K 4M DRAM
IC702 TC90A90FG DNR
+5V
+3. 3V
TO B4 5/6. B4 1/6. 2/6_27 VP IN
U MAIN TO B4 5/6. B4 1/6_16
HP IN TO B4 5/6. B4 1/6_28
V MAIN TO B4 5/6. B4 1/6_15
Y MAIN TO B4 5/6. B4 1/6_14
SCL
SDA
TO B4 5/6. B4 1/6. 4/6_26
D5V-1 TO B4 5/6. B4 1/6_5
NR 3. 3V TO B4 5/6. B4 1/6_2
A3. 3V TO B4 5/6. B4 1/6_7
D701 MA2S111
FL702 CKD510JB1A105ST
FL703 CKD510JB1A105ST
B4 (5/6)
(DNR)
B-SS893<CH. >-B4. -P5

B4 (6/6)
(YUV CONVERTER)

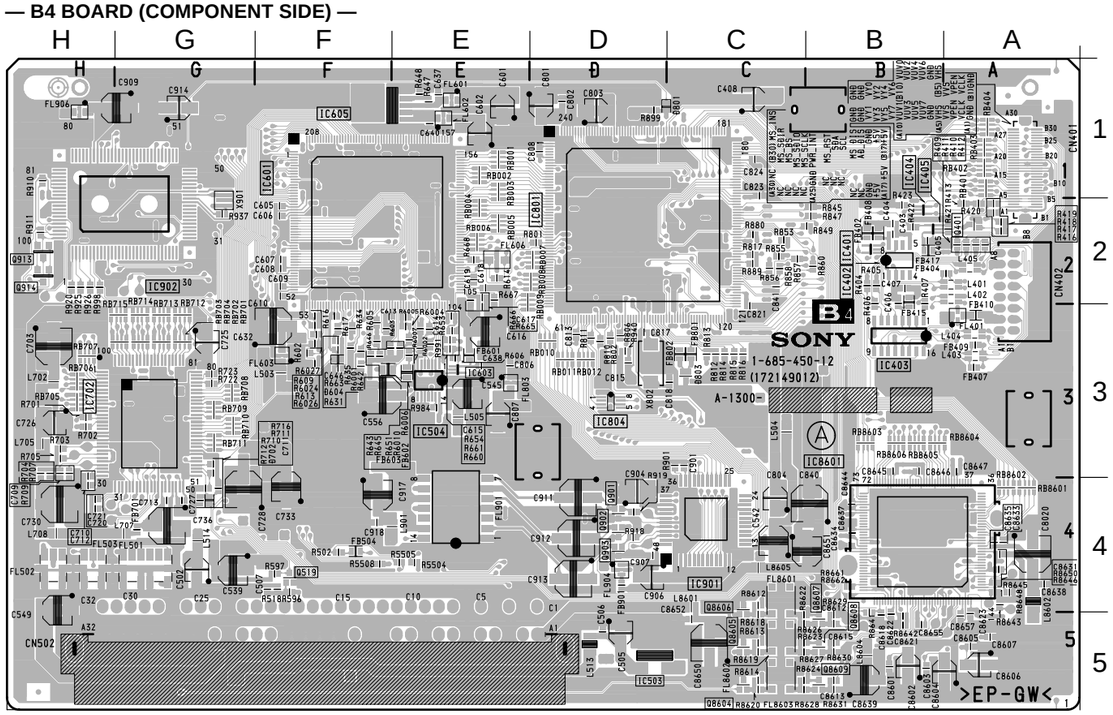
PLACE THESE CAPACITORS CLOSE TO SPECIFIED PINS OF CXA3506R

IC8601
CXA3506R
YUV CONVERTER

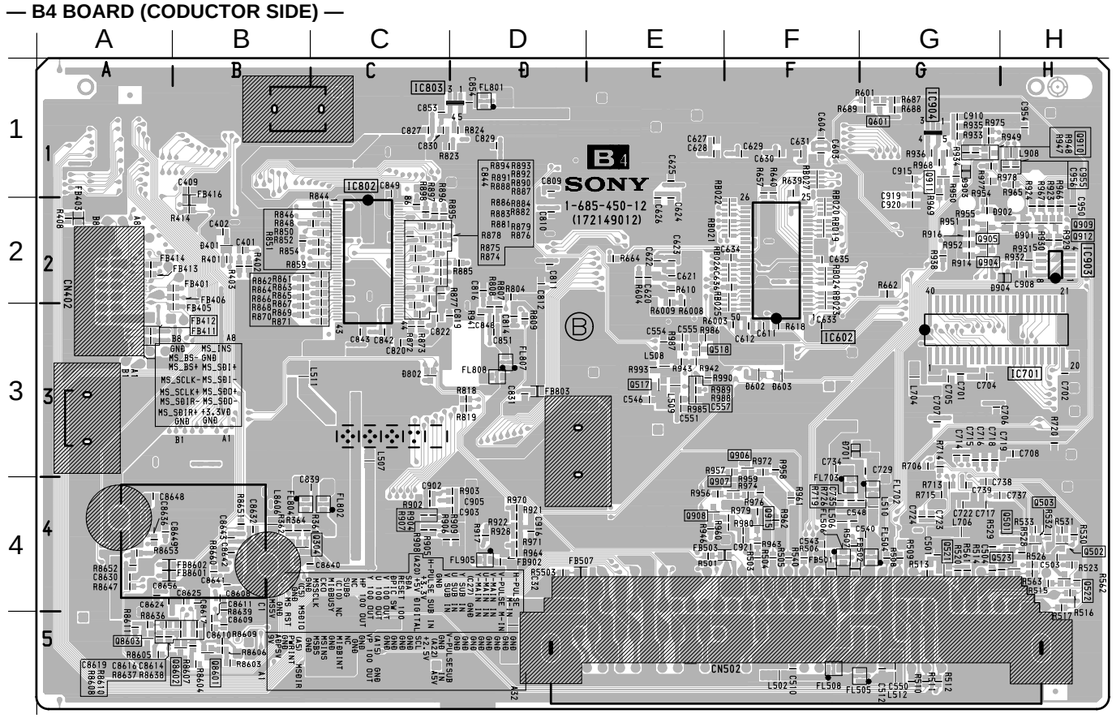
B-SS893<CH.>-B4.-P6

B4 [YUV AMP, YUV CON., VDRC, MID, D/A CONV., MID ENGINE, DNR]

— B4 BOARD (COMPONENT SIDE) —



— B4 BOARD (CODUCTOR SIDE) —



• B4 BOARD SEMICONDUCTOR LOCATION

IC

	(Component Side)	(Conductor Side)
IC503	D-5	
IC504	E-4	
IC601	F-2	
IC602		F-2
IC605	F-1	
IC701		H-2
IC702	G-3	
IC801	D-1	
IC802		C-2
IC803		D-1
IC804	D-3	
IC901	C-4	
IC902	H-1	
IC903		H-2
IC904		G-1
IC8601		B-4

TRANSISTOR

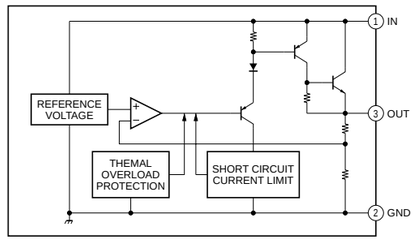
	(Component Side)	(Conductor Side)	*
Q304		B-4	②
Q501		H-4	②
Q502		H-4	②
Q503		H-4	②
Q517		E-3	②
Q518	E-3		②
Q519	F-4		②
Q521		G-4	②
Q522		H-4	②
Q523		H-4	②
Q601		G-1	②
Q901	D-4		②
Q902	D-4		②
Q903	D-4		②
Q904		H-2	②
Q905		H-2	②
Q906		F-4	②
Q907		F-4	②
Q908		E-4	②
Q909		H-2	②
Q911		G-1	②
Q912		H-2	②
Q913	H-2		②
Q914	H-2		②
Q8601		B-5	②
Q8602		B-5	②
Q8603		A-5	②
Q8604	C-5		②
Q8605	C-5		②
Q8606	C-5		②
Q8607	B-5		②
Q8608	B-5		②
Q8609	B-5		②

DIODE

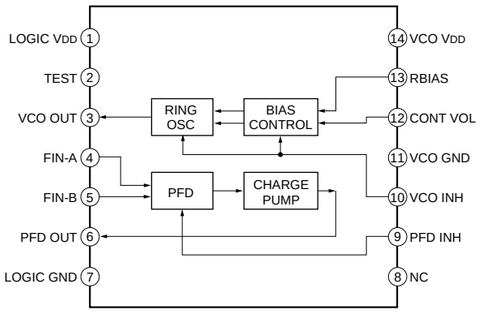
	(Component Side)	(Conductor Side)	*
D604	F-3		③
D701		F-3	③
D801		C-1	③
D802		C-3	⑨
D803	C-3		⑪
D901		H-2	⑪
D902		H-2	⑨
D903		G-1	⑨

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

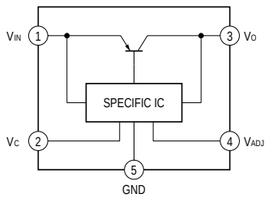
• **B4(1/6) BOARD IC503 : NJM2391DL1-33(TE1)**



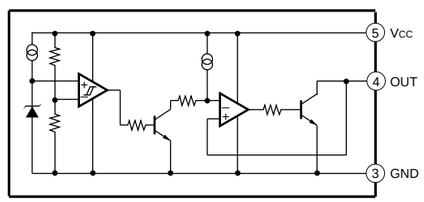
• **B4(1/6) BOARD IC504 : TLC2933IPWR**



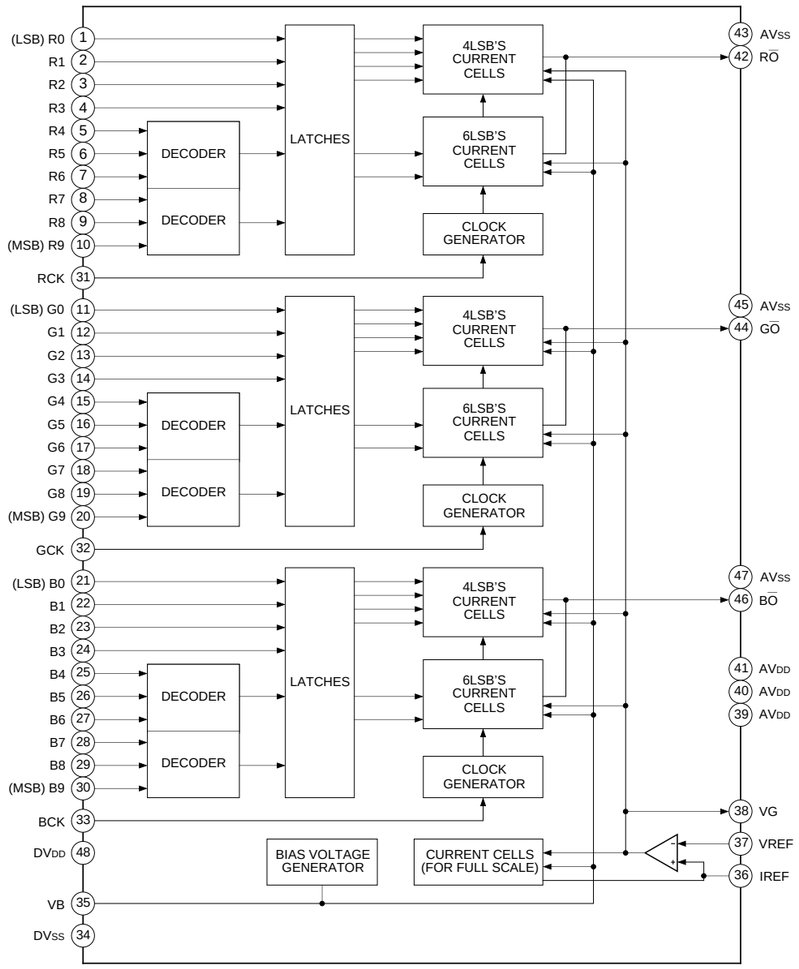
• **B4(2/6) BOARD IC605 : PQ070XZ01ZP**



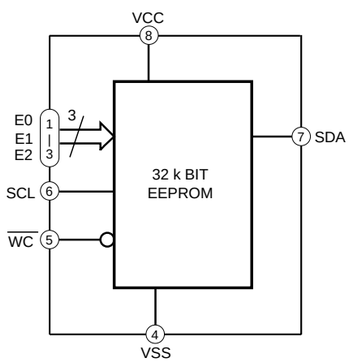
• **B4(3/6) BOARD IC803, 903 : PST9143NL**



• **B4(4/6) BOARD IC901 : CXD2309**



• **B4(4/6) BOARD IC903 : MC24C32-WMN6T(A)**



•B4(1/6)BOARD WAVEFORMS

① 3.3VP-P(H)	② 3.3VP-P(V)	③ NTSC 0.5VP-P(H)	③ SECAM 0.5VP-P(H)	③ PAL 0.7VP-P(H)	④ PAL 0.6VP-P(H) NTSC/SECAM 0.4VP-P(H)
⑤ PAL 0.6VP-P(H) NTSC/SECAM 0.4VP-P(H)	⑥ NTSC 1.0VP-P(H)	⑥ SECAM 1.0VP-P(H)	⑥ PAL 1.3VP-P(H)	⑦ PAL 1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)	⑧ PAL 1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)
⑨ 4.5VP-P(H)	⑩ 5.0VP-P(H)				

•B4(3/6)BOARD WAVEFORM

① 2.5VP-P (18.543956MHz)

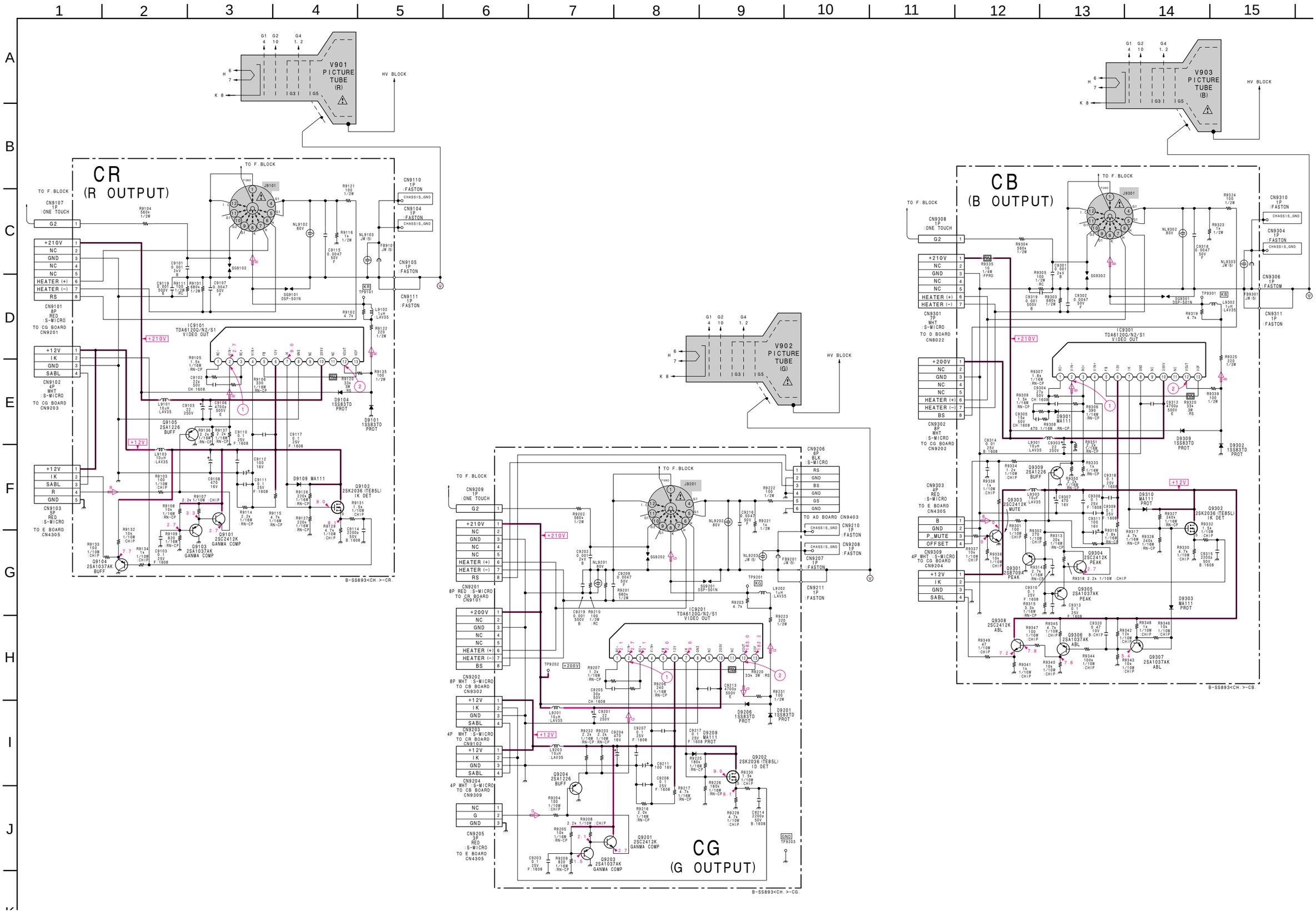
•B4(4/6)BOARD WAVEFORMS

① PAL 0.7VP-P(H) NTSC/SECAM 0.5VP-P(H)	② NTSC 0.9VP-P(H)	② SECAM 0.9VP-P(H)	② PAL 1.1VP-P(H)	③ PAL 0.7VP-P(H) NTSC/SECAM 0.5VP-P(H)	④ 1.4VP-P(20MHz)

•B4(5/6)BOARD WAVEFORMS

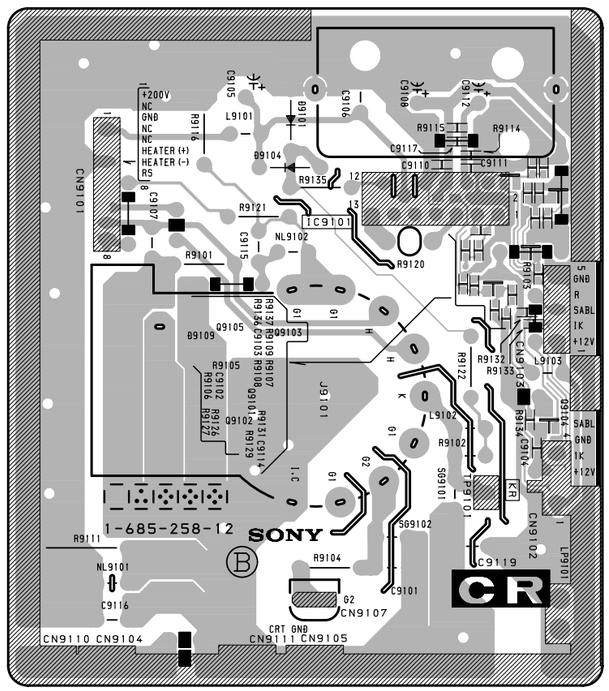
① NTSC 0.9VP-P(H)	① SECAM 0.9VP-P(H)	① PAL 1.1VP-P(H)	② PAL 0.7VP-P(H) NTSC/SECAM 0.5VP-P(H)	③ PAL 0.7VP-P(H) NTSC/SECAM 0.5VP-P(H)	④ 5.1VP-P(v)
⑤ 4.5VP-P(H)					

(5) CR, CG, and CB Boards



CR [R OUTPUT]

— CR BOARD (CONDUCTOR SIDE) —



- **CR BOARD SEMICONDUCTOR LOCATION**

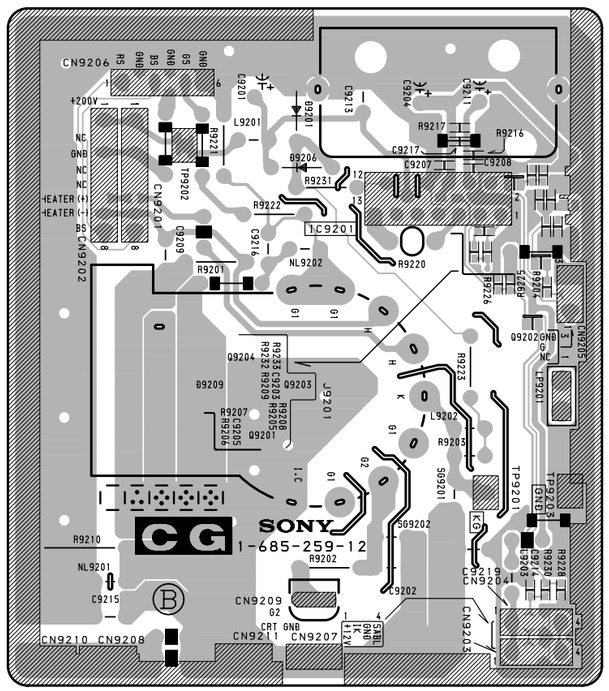
Ref.	✻
D9109	③
Q9101-Q9105	①

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

CG [G OUTPUT]

— CG BOARD (CONDUCTOR SIDE) —



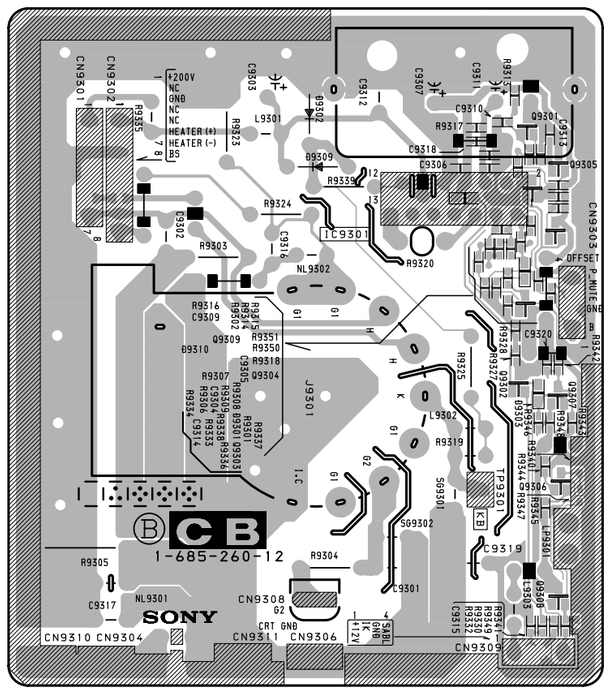
- **CG BOARD SEMICONDUCTOR LOCATION**

Ref.	✻
D9209	③
Q9201-Q9204	①

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

CB [B OUTPUT]

— CB BOARD (CONDUCTOR SIDE) —

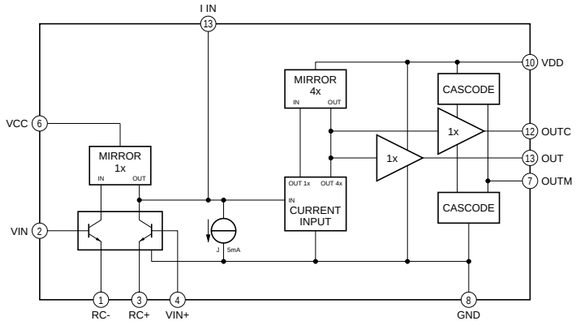


- **CB BOARD SEMICONDUCTOR LOCATION**

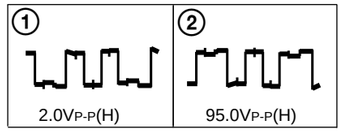
Ref.	✻
D9301,9303,9310	③
Q7301-Q9309	①

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

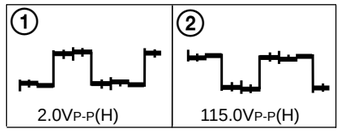
- **CR BOARD IC9101 : TDA6120Q/N2/S1**
  CG BOARD IC9201 : TDA6120Q/N2/S1
  CB BOARD IC9301 : TDA6120Q/N2/S1



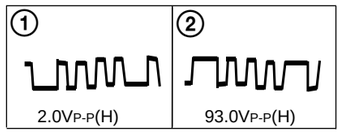
•CR BOARD WAVEFORMS



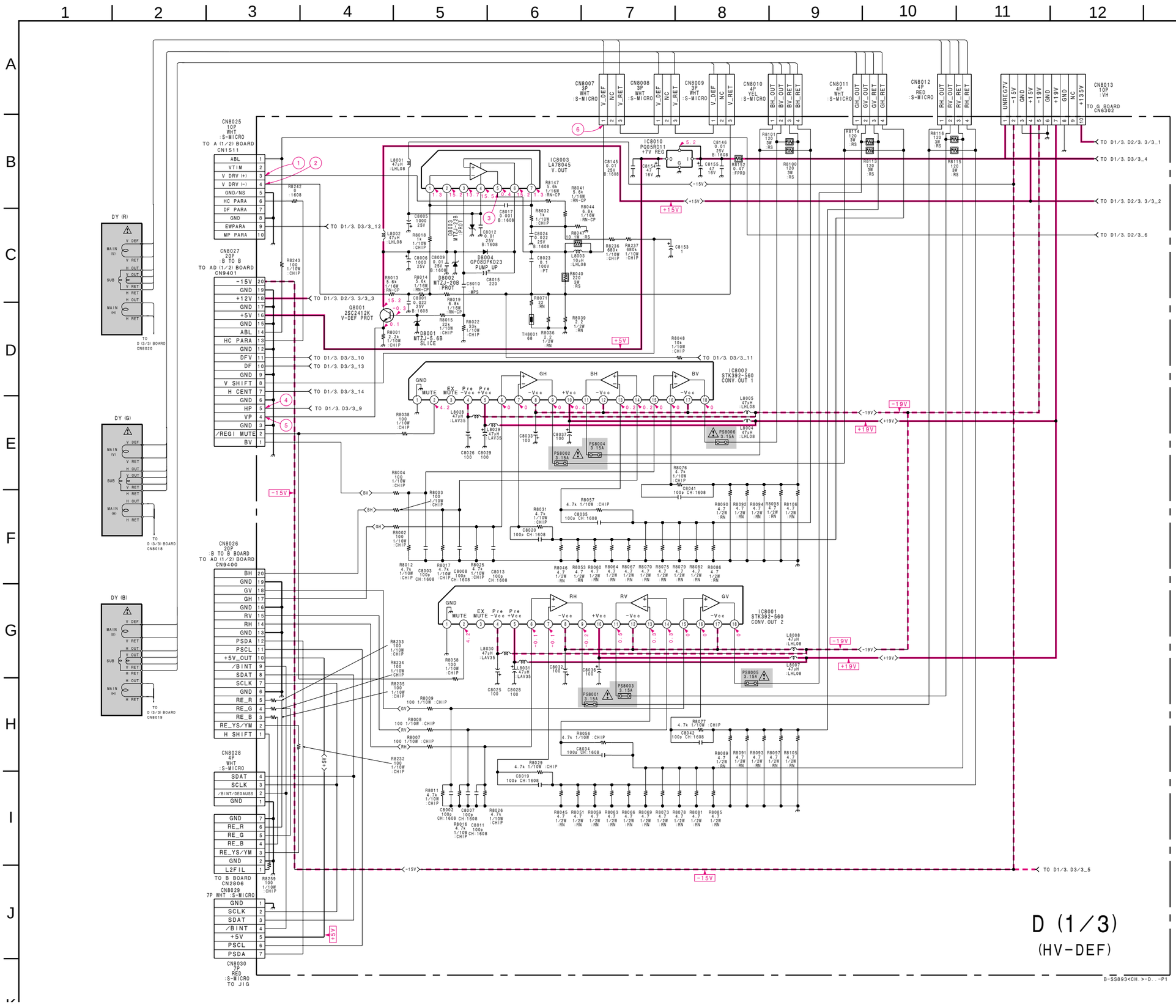
•CG BOARD WAVEFORMS

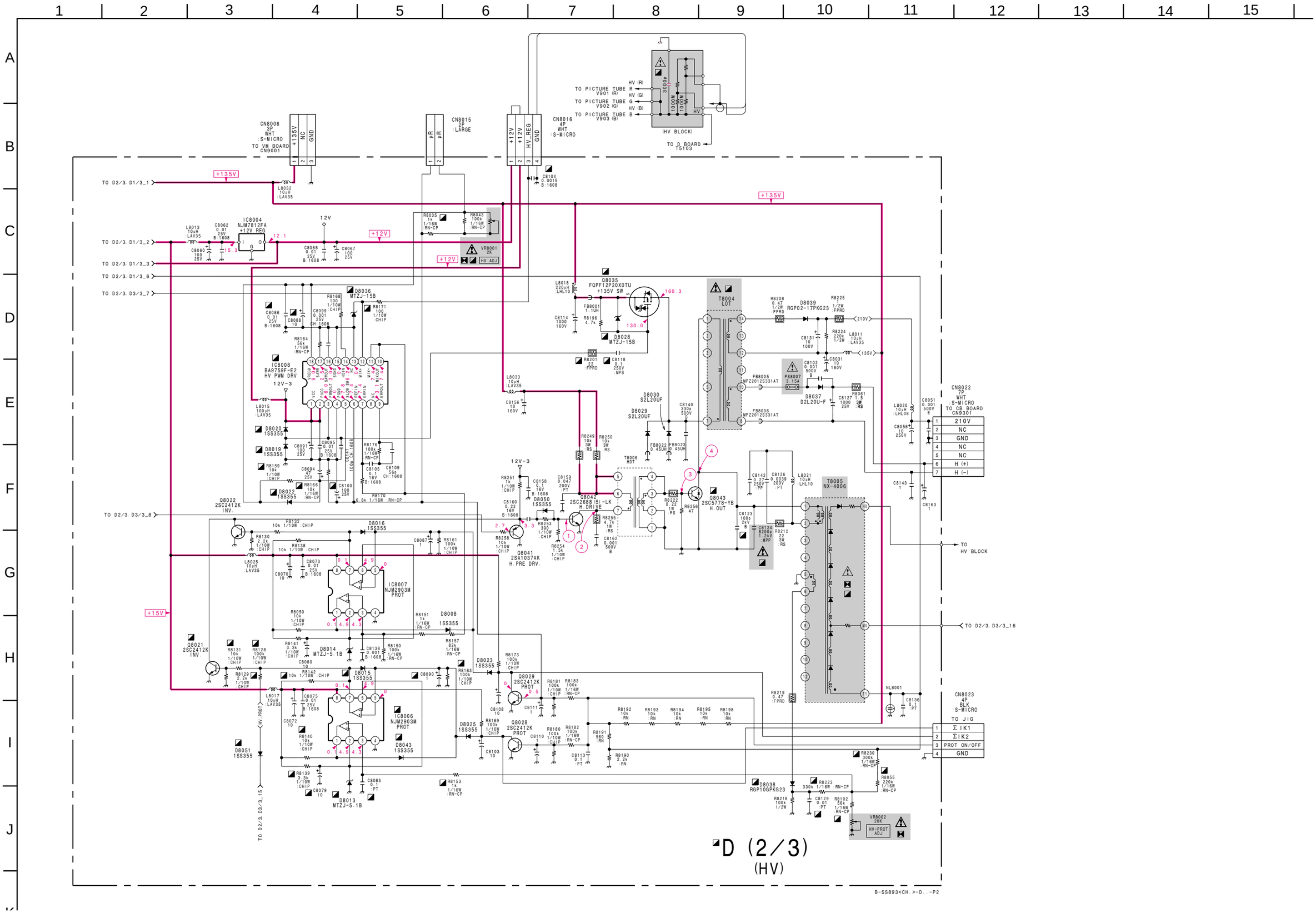


•CB BOARD WAVEFORMS



(6) D Board


CN8007 3P WHT :S-MICRO
CN8008 3P WHT :S-MICRO
CN8009 3P WHT :S-MICRO
CN8010 4P YEL :S-MICRO
CN8011 4P WHT :S-MICRO
CN8012 4P RED :S-MICRO
CN8013 10P :VH
TO G BOARD CN6302
CN8025 10P WHT :S-MICRO
TO A (1/2) BOARD CN1511
CN8027 20P :B TO B
TO AD (1/2) BOARD CN9401
CN8026 20P :B TO B BOARD
TO AD (1/2) BOARD CN9400
CN8028 4P WHT :S-MICRO
CN8029 7P WHT :S-MICRO
TO B BOARD CN2806
CN8030 7P RED :S-MICRO TO JIG
DY (R)
DY (G)
DY (B)
IC8010 P005RD11 +7V REG
IC8003 LA78045 V.OUT
IC8002 STK392-560 CONV.OUT 1
IC8001 STK392-560 CONV.OUT 2
Q8001 2SC2412K V-DEF PROT
+15V
-15V
+5V
+19V
-19V
TO D1/3. D2/3. 3/3_1
TO D1/3. D3/3_4
TO D1/3. D2/3. 3/3_2
TO D1/3. D2/3_6
TO D1/3. D3/3_5
D (1/3)
(HV-DEF)
B-SS893<CH.>-D..-P1

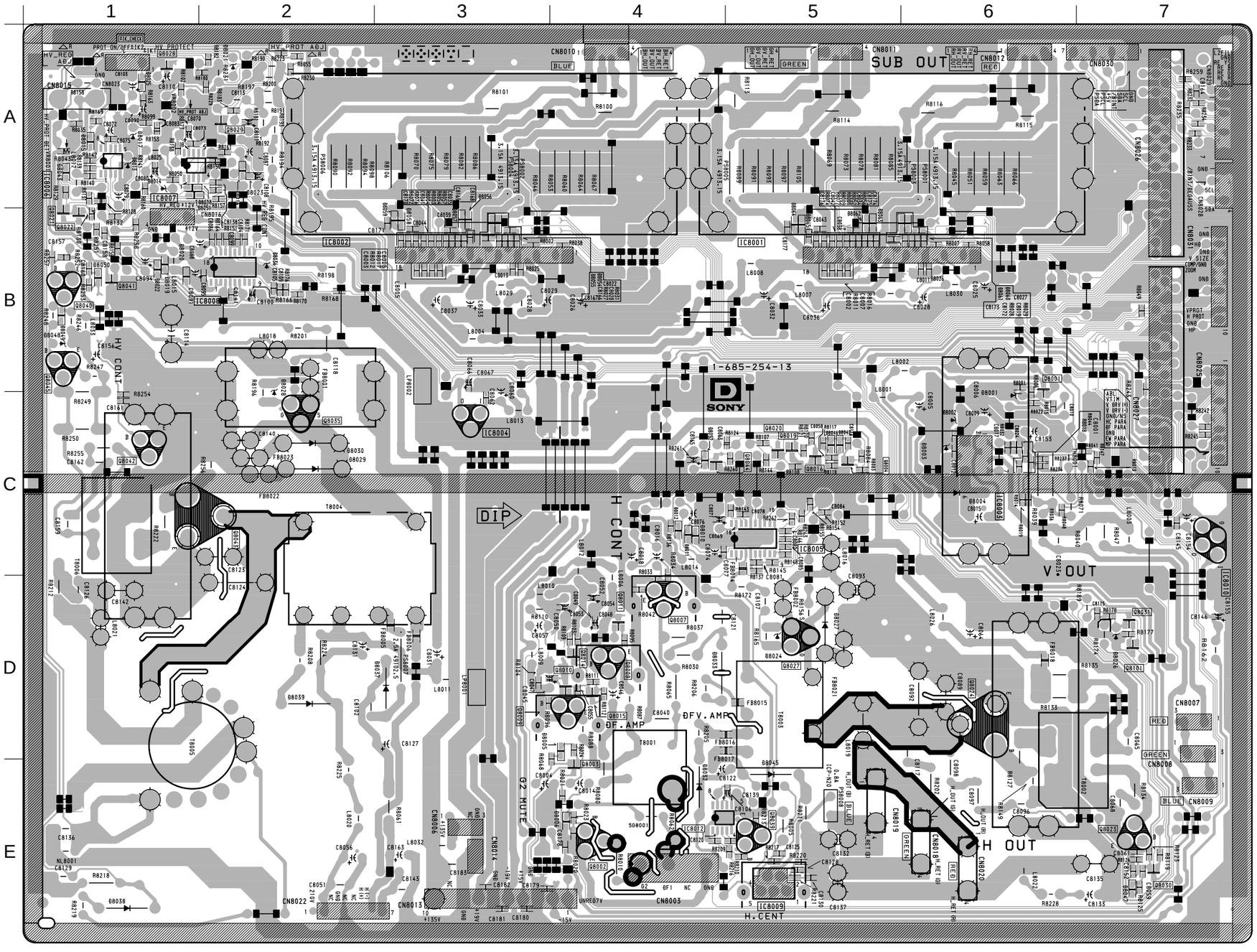

CN8006 3P WHT :S-MICRO TO VM BOARD CN9001
+135V
NC
GND
CN8015 2P :LARGE
μR
CN8016 4P WHT :S-MICRO
+12V
HV_REG
CN8104 0.0015 B:1608
HV (R)
HV (G)
HV (B)
HV
TO PICTURE TUBE R V901 (R)
TO PICTURE TUBE G V902 (G)
TO PICTURE TUBE B V903 (B)
3000p
1000M
(HV BLOCK)
TO D BOARD T5103
TO D2/3, D1/3_1
TO D2/3, D1/3_2
TO D2/3, D1/3_3
TO D2/3, D1/3_6
TO D2/3, D3/3_7
L8032 10μH :LAV35
L8013 10μH :LAV35
C8062 0.01 25V B:1608
C8060 100 25V
IC8004 NJM7812FA +12V REG
12.1
15.3
C8066 0.01 25V B:1608
C8067 100 25V
12V
R8035 1k 1/16W :RN-CP
R8043 100k 1/16W :RN-CP
VR8001 2K
HV ADJ
L8018 220μH :LHL10
Q8035 FQPF12P20YDTU +135V SW
160.3
130.0
FB8001 1.1UH
C8114 1000 160V
R8196 4.7k
D8028 MTZJ-15B
R8201 22 :FPRD
C8118 0.1 250V :MPS
T8004 LOT
R8208 0.47 1/2W :FPRD
D8039 RGP02-17PKG23
R8225 1/2W :FPRD
210V
C8131 10 100V
R8224 220k 1/2W
L8011 10μH :LAV35
135V
C8031 10 160V
C8102 0.001 500V B
PS8007 3.15A
D8037 D2L20U-F
R8061 1.5 3W :RS
FB8005 MPZ2012S331AT
FB8006 MPZ2012S331AT
D8030 S2L20UF
D8029 S2L20UF
C8140 330p 500V B
FB8022 0.45UH
FB8023 0.45UH
L8033 10μH :LAV35
C8156 10 160V
R8249 10k 3W :RS
R8250 10k 3W :RS
T8006 HOT
12V-3
R8251 1k 1/10W :CHIP
C8158 0.1 16V B:1608
C8160 0.22 16V B:1608
D8050 1SS355
R8253 390 1/10W :CHIP
R8254 1.5k 1/10W :CHIP
Q8041 2SA1037AK H.PRE DRV.
C8159 0.047 200V :PT
Q8042 2SC2688 (5)-LK H.DRIVE
R8255 4.7k 1W :RS
C8162 0.001 500V B
Q8043 2SC5778-YB H.OUT
R8222 0.22 1W :RS
R8256 47
C8142 0.27 250V :PP
C8126 0.0039 200V :PT
L8021 10uH :LHL10
T8005 NX-4006
C8123 100p 2kV B
C8124 8200p 1.2kV :MPP
R8212 22 3W :RS
TO HV BLOCK
TO D2/3, D3/3_16
R8219 0.47 :FPRD
NL8001
C8136 0.1 :PT
CN8023 4P BLK :S-MICRO TO JIG
Σ IK1
Σ IK2
PROT ON/OFF
GND
R8230 300k 1/16W :RN-CP
R8055 220k 1/16W :RN-CP
D8038 RGP10GPKG23
R8223 330k 1/16W :RN-CP
R8218 100k 1/2W
C8129 0.01 :PT
R8102 56k 1/16W :RN-CP
VR8002 20K
HV-PROT ADJ
L8020 10μH :LHL08
C8056 10 250V
C8051 0.001 500V E
C8143 1
C8163 1
CN8022 7P WHT :S-MICRO TO CB BOARD CN9301
210V
NC
GND
NC
NC
H (+)
H (-)
C8104 0.0015 B:1608
R8035 1k 1/16W :RN-CP
R8043 100k 1/16W :RN-CP
VR8001 2K
HV ADJ
+135V
+12V
12V
IC8004 NJM7812FA +12V REG
L8013 10μH :LAV35
C8062 0.01 25V B:1608
C8060 100 25V
C8066 0.01 25V B:1608
C8067 100 25V
12.1
15.3
L8018 220μH :LHL10
Q8035 FQPF12P20YDTU +135V SW
160.3
130.0
FB8001 1.1UH
C8114 1000 160V
R8196 4.7k
D8028 MTZJ-15B
R8201 22 :FPRD
C8118 0.1 250V :MPS
T8004 LOT
R8208 0.47 1/2W :FPRD
D8039 RGP02-17PKG23
R8225 1/2W :FPRD
210V
C8131 10 100V
R8224 220k 1/2W
L8011 10μH :LAV35
135V
C8031 10 160V
C8102 0.001 500V B
PS8007 3.15A
D8037 D2L20U-F
R8061 1.5 3W :RS
FB8005 MPZ2012S331AT
FB8006 MPZ2012S331AT
D8030 S2L20UF
D8029 S2L20UF
C8140 330p 500V B
FB8022 0.45UH
FB8023 0.45UH
L8033 10μH :LAV35
C8156 10 160V
R8249 10k 3W :RS
R8250 10k 3W :RS
T8006 HOT
12V-3
R8251 1k 1/10W :CHIP
C8158 0.1 16V B:1608
C8160 0.22 16V B:1608
D8050 1SS355
R8253 390 1/10W :CHIP
R8254 1.5k 1/10W :CHIP
Q8041 2SA1037AK H.PRE DRV.
C8159 0.047 200V :PT
Q8042 2SC2688 (5)-LK H.DRIVE
R8255 4.7k 1W :RS
C8162 0.001 500V B
Q8043 2SC5778-YB H.OUT
R8222 0.22 1W :RS
R8256 47
C8142 0.27 250V :PP
C8126 0.0039 200V :PT
L8021 10uH :LHL10
T8005 NX-4006
C8123 100p 2kV B
C8124 8200p 1.2kV :MPP
R8212 22 3W :RS
TO HV BLOCK
TO D2/3, D3/3_16
R8219 0.47 :FPRD
NL8001
C8136 0.1 :PT
CN8023 4P BLK :S-MICRO TO JIG
Σ IK1
Σ IK2
PROT ON/OFF
GND
R8230 300k 1/16W :RN-CP
R8055 220k 1/16W :RN-CP
D8038 RGP10GPKG23
R8223 330k 1/16W :RN-CP
R8218 100k 1/2W
C8129 0.01 :PT
R8102 56k 1/16W :RN-CP
VR8002 20K
HV-PROT ADJ
L8020 10μH :LHL08
C8056 10 250V
C8051 0.001 500V E
C8143 1
C8163 1
CN8022 7P WHT :S-MICRO TO CB BOARD CN9301
210V
NC
GND
NC
NC
H (+)
H (-)
C8086 0.01 25V B:1608
C8088 10
C8099 0.001 25V CH:1608
D8036 MTZJ-15B
R8171 100 1/10W :CHIP
R8164 56k 1/16W :RN-CP
IC8008 BA9759F-E2 HV PWM DRV
12V-3
L8015 100μH :LAV35
D8020 1SS355
D8019 1SS355
C8095 0.01 25V B:1608
C8094 47 25V
C8100 100 25V
R8159 10k 1/10W :CHIP
R8166 10k 1/16W :RN-CP
D8022 1SS355
R8178 100k 1/16W :RN-CP
C8105 0.1 16V B:1608
C8109 56p CH:1608
R8170 6.8k 1/16W :RN-CP
C8141 10p 1608
TO D2/3, D3/3_8
Q8022 2SC2412K INV.
R8132 10k 1/10W :CHIP
R8130 2.2k 1/10W :CHIP
R8138 10k 1/10W :CHIP
L8025 10uH :LAV35
C8070 10
C8073 0.01 25V B:1608
D8016 1SS355
C8087 1
R8161 100k 1/10W :CHIP
IC8007 NJM2903M PROT
+15V
R8050 10k 1/10W :CHIP
R8151 1k 1/16W :RN-CP
D8008 1SS355
R8157 82k 1/16W :RN-CP
Q8021 2SC2412K INV.
R8131 10k 1/10W :CHIP
R8128 100k 1/10W :CHIP
R8141 3.3k 1/10W :CHIP
D8014 MTZJ-5.1B
C8138 0.001 B:1608
R8150 100k 1/16W :RN-CP
C8080 10
R8129 2.2k 1/10W :CHIP
R8142 10k 1/10W :CHIP
D8015 1SS355
C8090 1
R8163 100k 1/10W :CHIP
D8023 1SS355
R8173 100k 1/10W :CHIP
Q8029 2SC2412K PROT
C8108 10
C8111 1
R8181 100k 1/10W :CHIP
R8183 100k 1/16W :RN-CP
R8192 10k :RN
R8193 10k :RN
R8194 10k :RN
R8195 10k :RN
R8198 10k :RN
L8017 10μH :LAV35
C8075 0.01 25V B:1608
C8072 10
IC8006 NJM2903M PROT
D8025 1SS355
R8169 100k 1/10W :CHIP
Q8028 2SC2412K PROT
C8110 1
R8180 100k 1/10W :CHIP
R8182 100k 1/16W :RN-CP
R8191 560 :RN
R8190 2.2k :RN
C8103 10
C8113 0.1 :PT
HV_PROT
TO D2/3, D3/3_15
D8051 1SS355
R8140 10k 1/10W :CHIP
R8139 3.3k 1/10W :CHIP
C8079 10
D8013 MTZJ-5.1B
C8083 0.1 :PT
R8153 1k 1/16W :RN-CP
D (2/3)
(HV)
B-SS893<CH.>-D..-P2

D (3/3)
(DY DRIVE)

B-SS893<CH.>-D...-P3

D [HV-DEF., HV. DY DRIVE]

— D BOARD (CONDUCTOR SIDE) —



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

- **D BOARD SEMICONDUCTOR LOCATION**

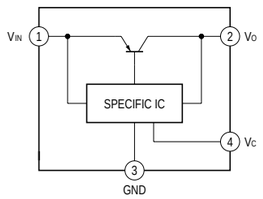
IC	(Component Side)	(Conductor Side) *
IC8001	B-5	
IC8002	B-3	
IC8003	C-6	
IC8004	C-3	
IC8005	C-5	
IC8006	A-1	
IC8007	A-1	
IC8008	B-2	
IC8009	E-5	
IC8010	C-7	
IC8012	E-4	

TRANSISTOR	(Component Side)	(Conductor Side) *
Q8002	E-4	-
Q8003	E-4	③
Q8004	C-5	①
Q8007	D-4	-
Q8008	D-4	-
Q8009	D-4	-
Q8010	D-4	①
Q8011	D-4	①
Q8014	D-4	①
Q8015	D-4	①
Q8016	C-5	①
Q8019	C-5	①
Q8020	C-5	①
Q8021	B-1	①
Q8022	B-1	①
Q8023	E-7	-
Q8024	D-6	-
Q8027	D-5	-
Q8028	A-1	①
Q8029	A-2	①
Q8030	D-7	③
Q8031	D-7	①
Q8035	C-2	-
Q8039	E-5	-
Q8041	B-1	①
Q8042	C-1	-
Q8043	C-1	-
Q8044	C-4	①
Q8101	D-7	①

DIODE	(Component Side)	(Conductor Side) *
D8001	C-6	-
D8002	C-6	-
D8003	C-6	-
D8004	C-6	-
D8005	D-4	③
D8006	E-4	③
D8008	A-1	③
D8010	C-4	③
D8011	C-4	③
D8012	C-4	③
D8013	A-1	-
D8014	A-1	-
D8015	A-1	③
D8016	A-2	③
D8019	B-1	③
D8020	B-1	③
D8022	B-1	③
D8023	A-2	③
D8024	D-5	-
D8025	A-1	③
D8026	D-7	-
D8027	D-5	-
D8028	C-2	-
D8029	C-2	-
D8030	C-2	-
D8032	E-4	-
D8033	D-4	-
D8036	B-2	-
D8037	D-3	-
D8038	E-1	-
D8039	D-1	-
D8043	A-1	③
D8045	E-5	-
D8047	E-7	③
D8050	B-1	③
D8051	A-1	③
D8052	C-4	③

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

- **D(1/3) BOARD IC8010 : PQ05RD1B**



•D(1/3) BOARD WAVEFORMS

① 1.7VP-P(V)	② 1.7VP-P(V)	③ 0.5VP-P(V)
④ 5.2VP-P(H)	⑤ 5.2VP-P(V)	⑥ 60.4P-P(V

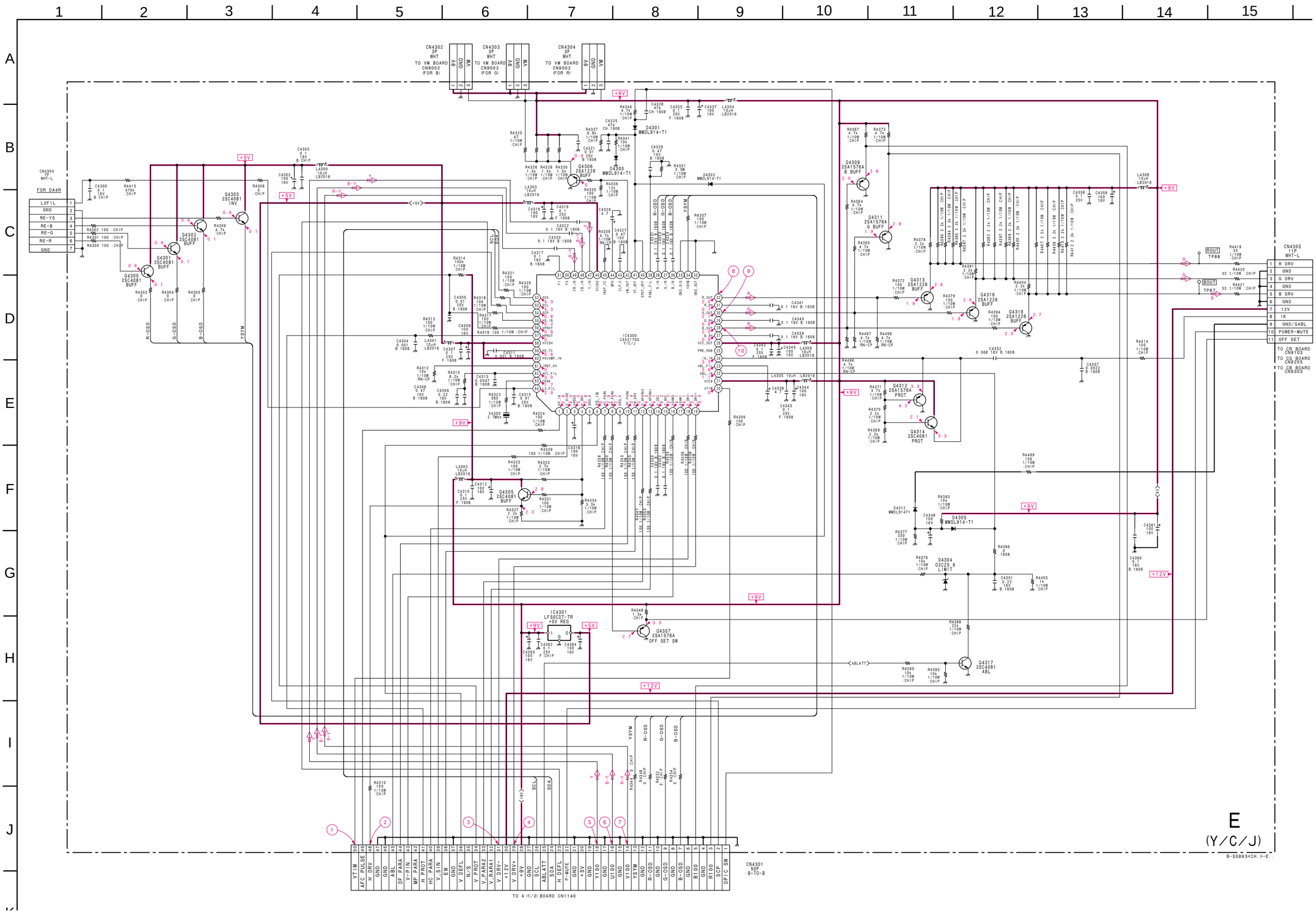
•D(2/3) BOARD WAVEFORMS

① 2.4VP-P(H)	② 130.0VP-P(H)	③ 808VP-P(H)
④ 950.0VP-P(H)		

•D(3/3) BOARD WAVEFORMS

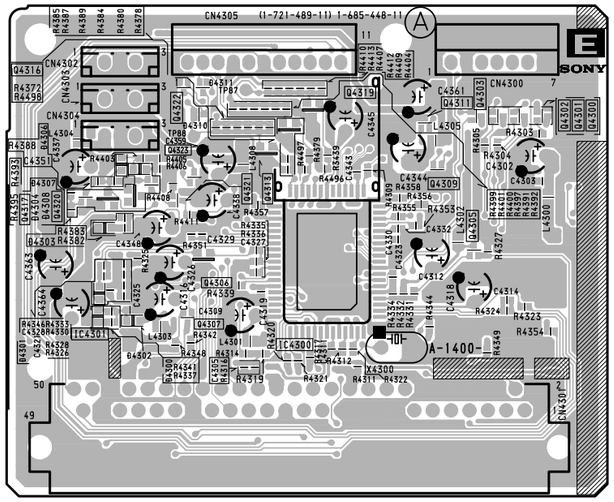
① 1.8VP-P(H)	② 2.4VP-P(H)	③ 127.0VP-P(H)
④ 2.5VP-P(H)	⑤ 1120VP-P(H)	

(7) E Board

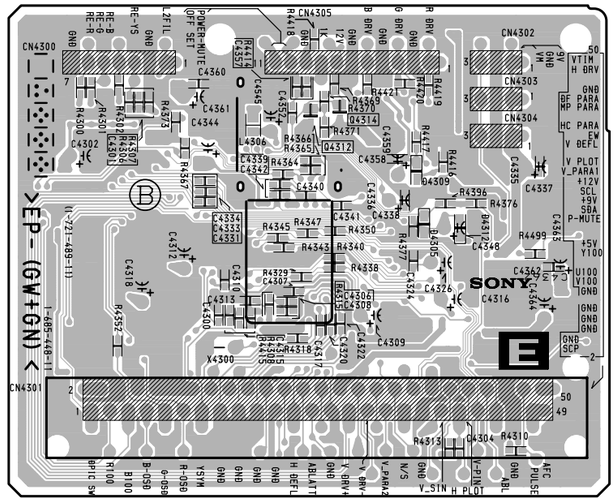

E
(Y/C/J)
B-SS893<CH.>-E..
IC4300 CXA2170Q Y/C/J
IC4301 LF50CDT-TR +5V REG
CN4300 7P WHT-L FOR DA4R
CN4301 50P :B-TO-B
TO A (1/2) BOARD CN1140
CN4302 3P WHT TO VM BOARD CN9002 (FOR B)
CN4303 3P WHT TO VM BOARD CN9002 (FOR G)
CN4304 3P WHT TO VM BOARD CN9002 (FOR R)
CN4305 11P WHT-L
TO CR BOARD CN9103
TO CG BOARD CN9203
TO CB BOARD CN9303
D4300 MMDL914-T1
D4301 MMDL914-T1
D4302 MMDL914-T1
D4303 MMDL914-T1
D4304 02CZ5.6 LIMIT
D4305 MMDL914-T1
D4312 MMDL914T1
Q4300 2SC4081 BUFF
Q4301 2SC4081 BUFF
Q4302 2SC4081 BUFF
Q4303 2SC4081 INV
Q4305 2SC4081 BUFF
Q4307 2SA1576A OFF SET SW
Q4309 2SA1576A B BUFF
Q4311 2SA1576A G BUFF
Q4312 2SA1576A PROT
Q4313 2SA1226 BUFF
Q4314 2SC4081 PROT
Q4316 2SA1226 BUFF
Q4317 2SC4081 ABL
Q4319 2SA1226 BUFF
X4300 2.7MHz
+9V
+5V
+12V
R-OSD
G-OSD
B-OSD
YSYM
SCL
SDA
ABLATT
ROUT
TP88
TP87

E [Y/C/J]

— E BOARD (COMPONENT SIDE) —



— E BOARD (CODUCTOR SIDE) —

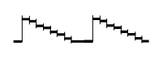
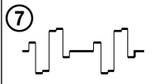
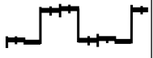


• E BOARD SEMICONDUCTOR LOCATION

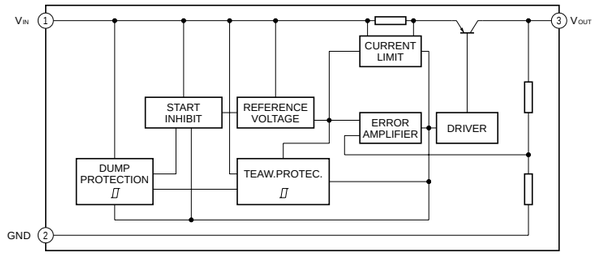
Ref.	✻
Q4300-Q4303, Q4305-Q4307, Q4309, Q4311, Q4313, Q4316, Q4317, Q4319	②
D4300-D4302, D4304, D4305, D4312	③

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

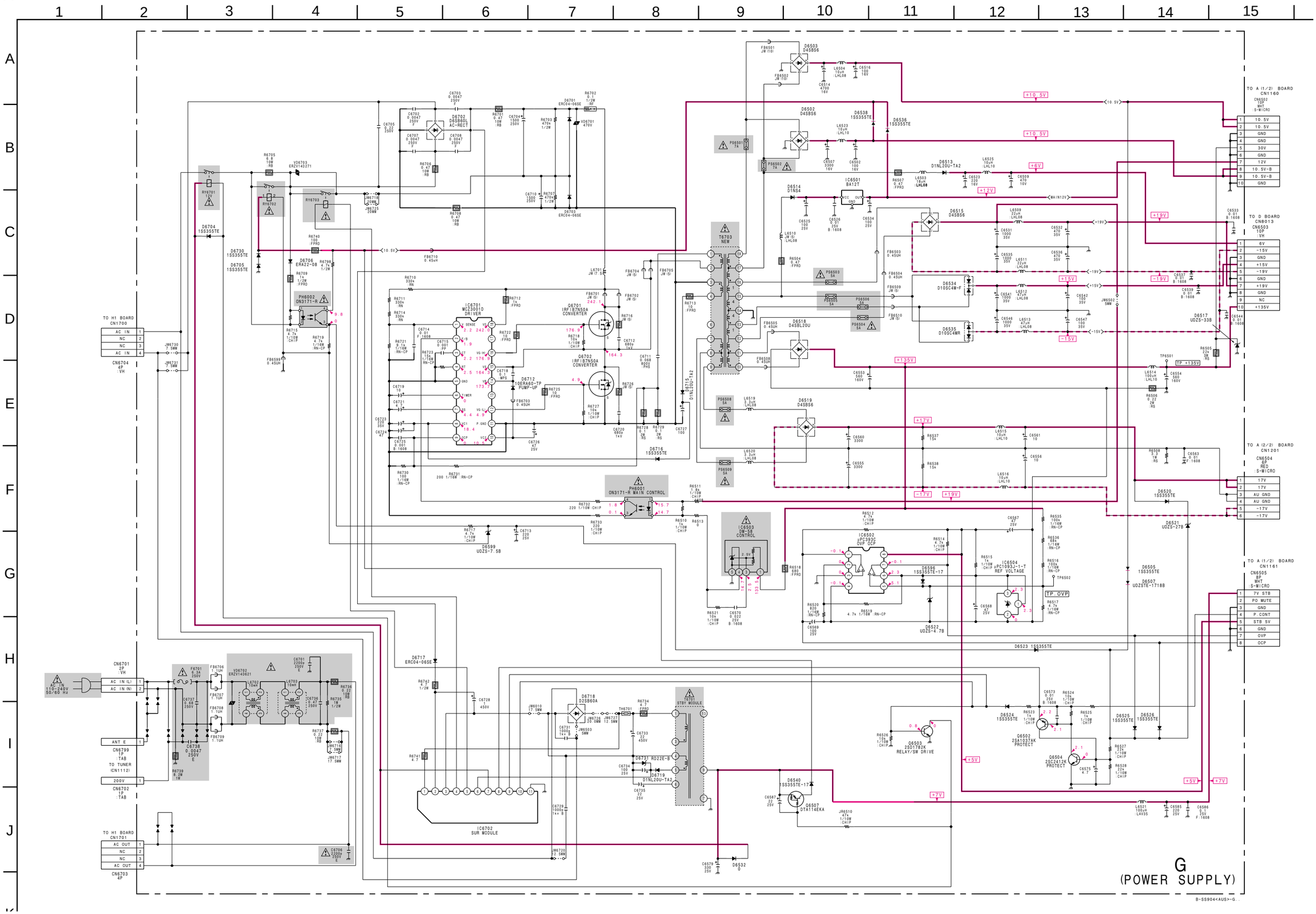
•E BOARD WAVEFORMS

① 4.5VP-P(H)	② 3.6VP-P(V)	③ 1.7VP-P(V)
④ 1.7VP-P(V)	⑤ NTSC 0.5VP-P(H)	⑤ SECAM  0.5VP-P(H)
⑤ PAL 0.7VP-P(H)	⑥ PAL 0.6VP-P(H) NTSC/SECAM 0.4VP-P(H)	⑦  PAL 0.6VP-P(H) NTSC/SECAM 0.4VP-P(H)
⑧ 2.0VP-P(H)	⑨  2.0VP-P(H)	⑩ 2.0VP-P(H)

• E BOARD IC4301 : LF50CDT-TR

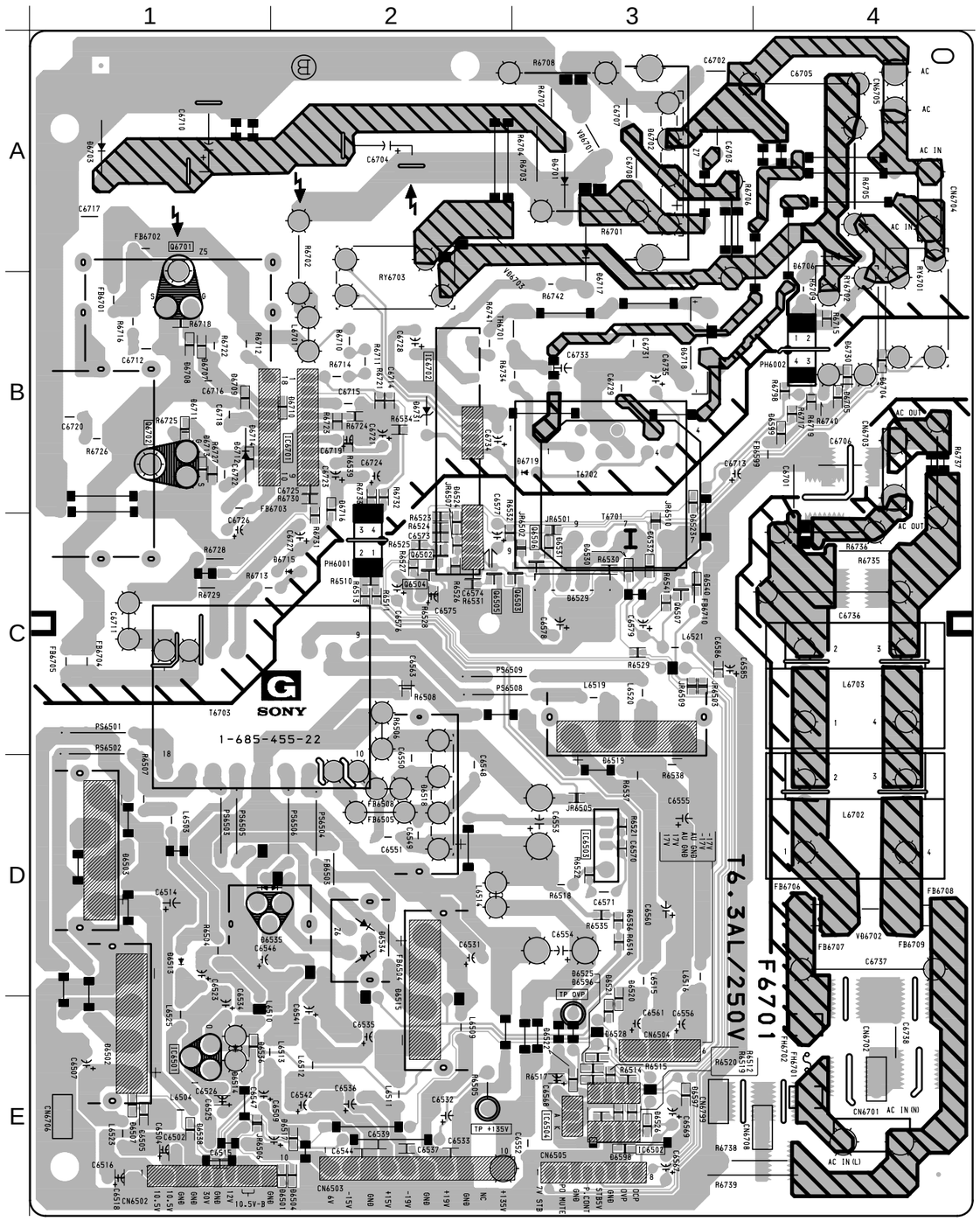


(8) G Board


G
(POWER SUPPLY)
B-SS904<AUS>-G..
TO H1 BOARD CN1700
CN6704 4P :VH
AC IN
NC
NC
AC IN
CN6703 4P
AC OUT
NC
NC
AC OUT
TO H1 BOARD CN1701
AC IN 110-240V 50/60 Hz
CN6701 2P :VH
AC IN (L)
AC IN (N)
ANT E
CN6799 1P :TAB
TO TUNER (CN1112)
200V
CN6702 1P :TAB
TO A (1/2) BOARD CN1160
CN6502 10P WHT :S-MICRO
10.5V
10.5V
GND
GND
30V
GND
12V
10.5V-B
10.5V-B
GND
TO D BOARD CN8013
CN6503 10P :VH
6V
-15V
GND
+15V
-19V
GND
+19V
GND
NC
+135V
TO A (2/2) BOARD CN1201
CN6504 6P RED :S-MICRO
17V
17V
AU GND
AU GND
-17V
-17V
TO A (1/2) BOARD CN1161
CN6505 8P WHT :S-MICRO
7V STB
PO MUTE
GND
P.CONT
STB 5V
GND
OVP
OCP
IC6501 BA12T
IC6502 µPC393C OVP OCP
IC6503 DM-58 CONTROL
IC6504 µPC1093J-1-T REF VOLTAGE
IC6701 MCZ3001D DRIVER
IC6702 SUB MODULE
T6703 NEW
T6701 STBY MODULE
PH6002 ON3171-R
PH8001 ON3171-R MAIN CONTROL
Q6701 IRFIB7N50A CONVERTER
Q6702 IRFIB7N50A CONVERTER
Q6502 2SA1037AK PROTECT
Q6503 2SD1782K RELAY/SW DRIVE
Q6504 2SC2412K PROTECT
Q6507 DTA114EKA
D6712 10ERA60-TP PUMP-UP
D6719 D1NL20U-TA2
D6731 RD22E-B
D6503 D4SBS6
D6502 D4SBS6
D6519 D4SBS6
D6515 D4SBS6
D6513 D1NL20U-TA2
D6534 D10SC4M-F
D6535 D10SC4MR
D6518 D4SBL20U
D6536 1SS355TE
D6538 1SS355TE
D6514 D1NS4
D6716 1SS355TE
D6717 ERC04-06SE
D6718 D2SB60A
D6540 1SS355TE-17
D6596 1SS355TE-17
D6517 UDZS-33B
D6520 1SS355TE
D6521 UDZS-27B
D6505 1SS355TE
D6507 UDZSTE-1718B
D6522 UDZS-4.7B
D6599 UDZS-7.5B
D6523 1SS355TE
D6524 1SS355TE
D6525 1SS355TE
D6526 1SS355TE
+10.5V
+6V
+12V
+19V
+15V
-19V
-15V
+135V
+17V
-17V
+19V
+5V
+7V
TP +135V
TP_OVP
TP6502
TP6501

G [POWER SUPPLY]

— G BOARD (CODUCTOR SIDE) —



• G BOARD SEMICONDUCTOR LOCATION

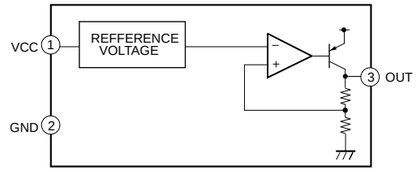
IC	(Component Side)	(Conductor Side) *
IC6501		E-1
IC6502		E-3
IC6503		D-3
IC6504		E-3
IC6701		B-2

TRANSISTOE	(Component Side)	(Conductor Side) *
Q6502		C-1 ①
Q6503		C-3 ①
Q6504		C-2 ①
Q6506		C-3 ①
Q6701		B-1 -
Q6702		B-1 -

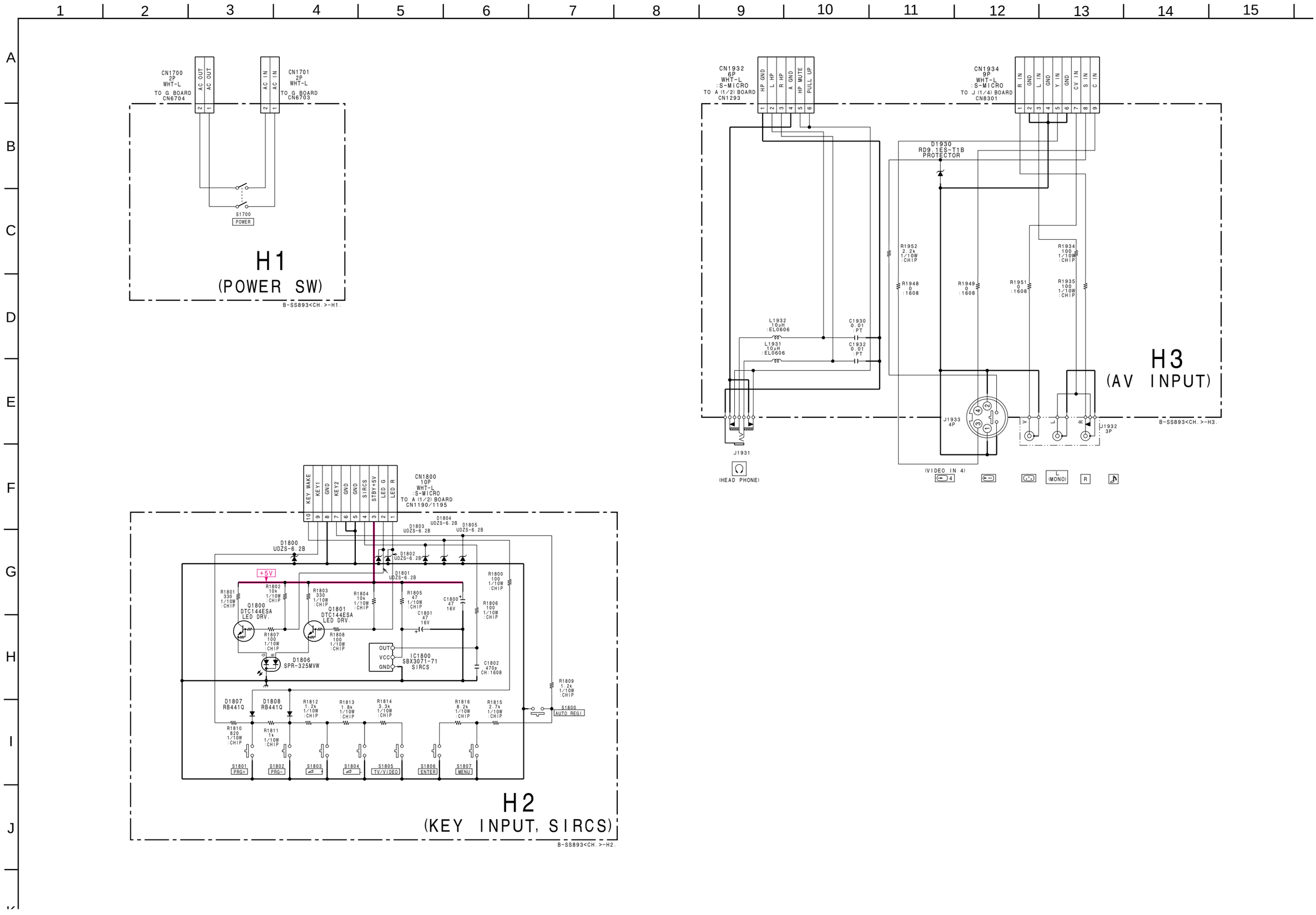
DIODE	(Component Side)	(Conductor Side) *
D6502		E-1 -
D6503		D-1 -
D6505		E-1 ③
D6507		E-1 ③
D6513		D-1 -
D6514		E-1 -
D6515		E-2 -
D6517		E-2 ③
D6518		D-2 -
D6519		C-3 -
D6520		E-3 ③
D6521		E-3 ③
D6522		E-3 ③
D6523		B-3 ③
D6524		C-2 ③
D6525		E-3 ③
D6526		E-3 ③
D6529		C-3 -
D6531		C-3 ③
D6532		C-3 ③
D6534		D-2 -
D6535		D-2 -
D6536		E-1 ③
D6538		E-1 ③
D6596		E-3 ③
D6597		E-3 ③
D6599		B-4 ③
D6702		A-3 -
D6704		B-4 ③
D6705		B-4 ③
D6706		A-4 -
D6712		B-1 -
D6715		C-2 -
D6716		C-2 ③
D6730	B-4	3

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

• G BOARD IC6501 : BA05FP

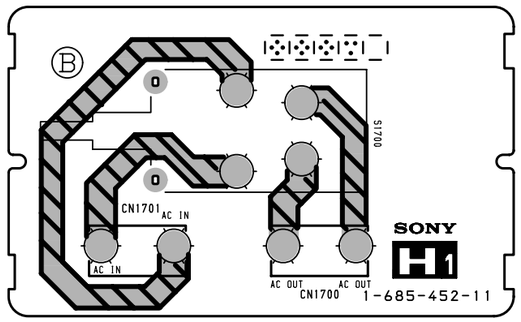


(9) H1, H2, and H3 Boards



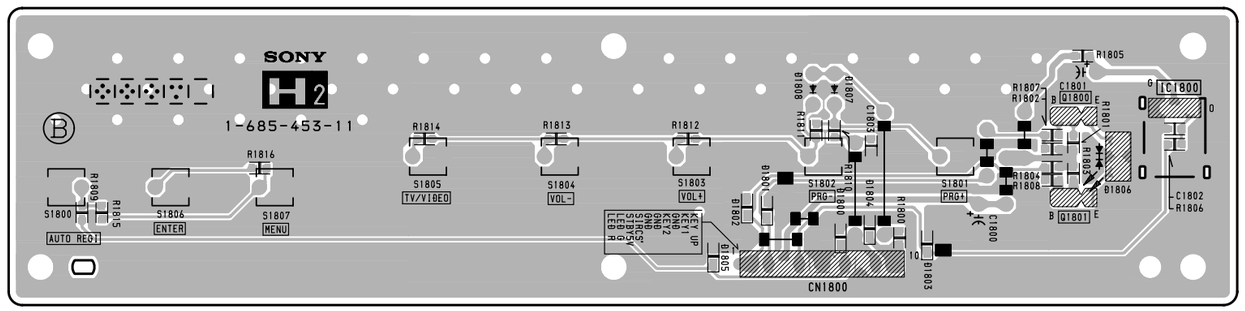
H1 [POWER SW]

— H1 BOARD (CODUCTOR SIDE) —



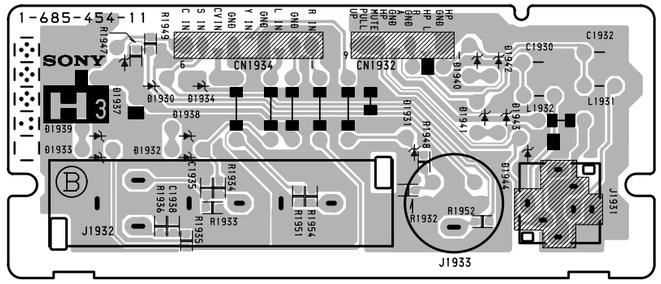
H2 [KEY INPUT, SIRCS]

— H2 BOARD (CODUCTOR SIDE) —



H3 [AV INPUT]

— H3 BOARD (CODUCTOR SIDE) —



- **H3 BOARD SEMICONDUCTOR LOCATION**

Ref.	✱
D1930	-

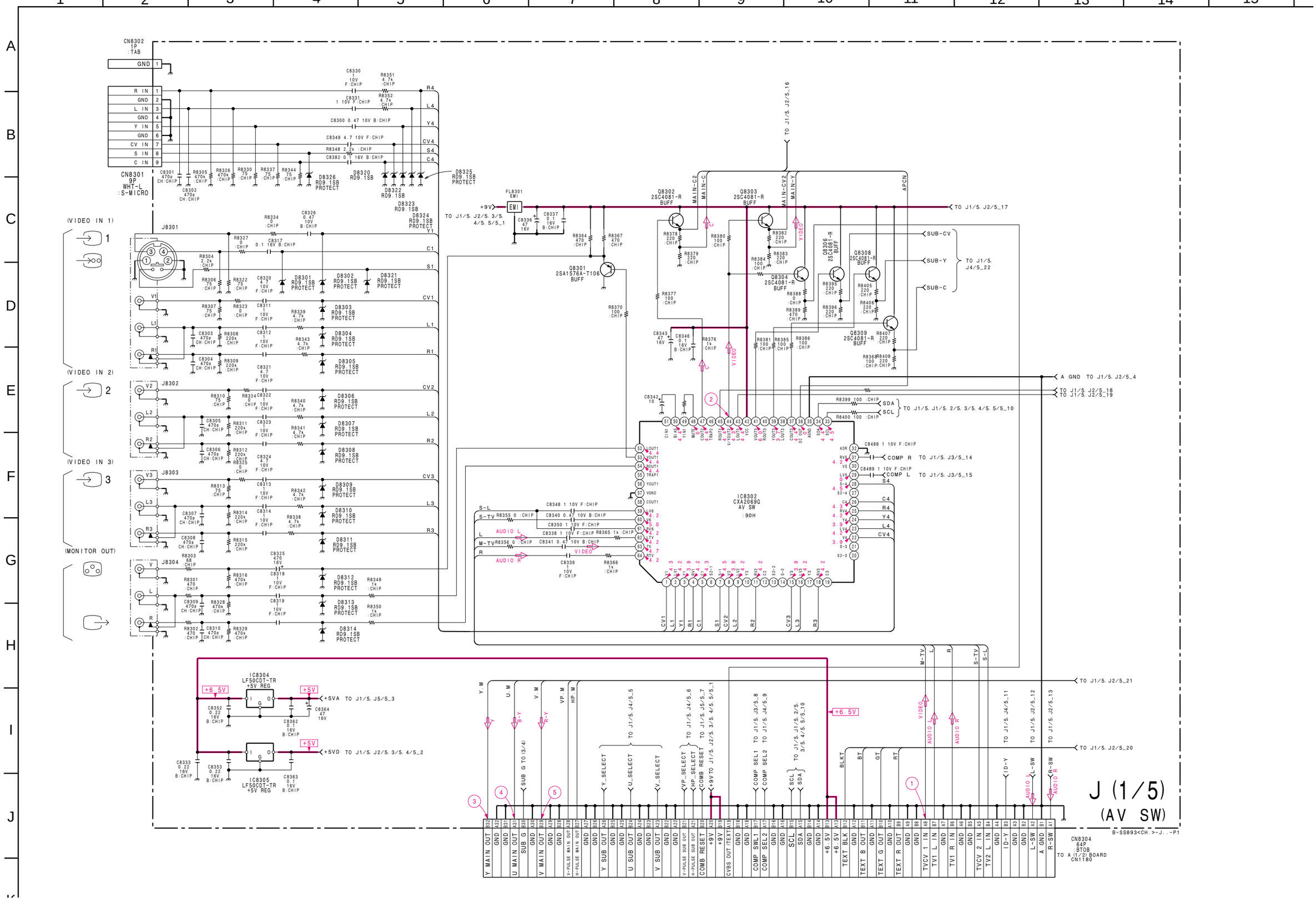
✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

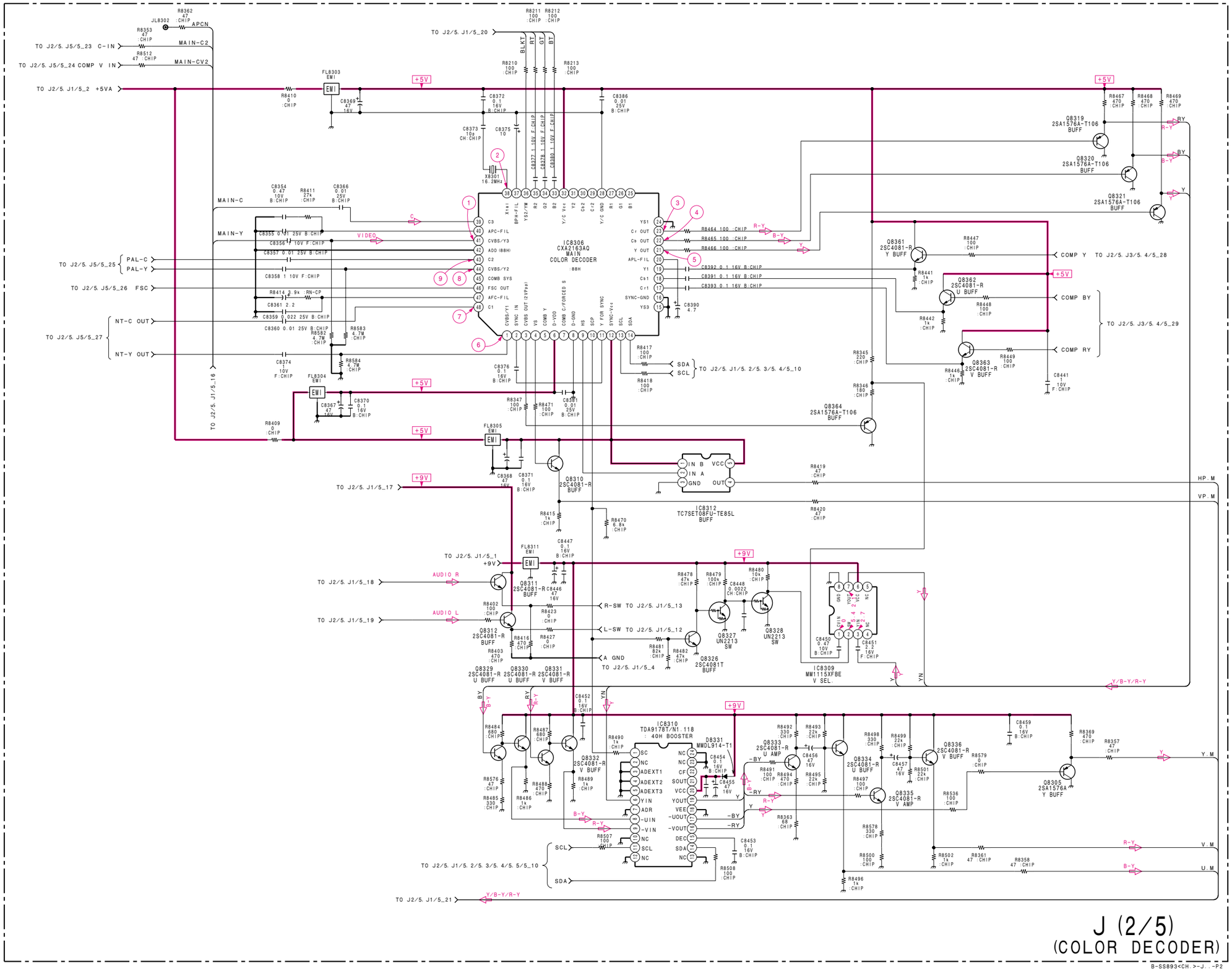
- **H2 BOARD SEMICONDUCTOR LOCATION**

Ref.	✱
Q1800, Q1801Q4309,	-
D1800-D1808	③

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

(10) J Board


CN8302
1P
:TAB
GND 1
CN8301
9P
WHT-L
:S-MICRO
R IN 1
GND 2
L IN 3
GND 4
Y IN 5
GND 6
CV IN 7
S IN 8
C IN 9
(VIDEO IN 1)
(VIDEO IN 2)
(VIDEO IN 3)
(MONITOR OUT)
J8301
J8302
J8303
J8304
IC8302
CXA2069Q
AV SW
:90H
IC8304
LF50CDT-TR
+5V REG
IC8305
LF50CDT-TR
+5V REG
Q8301
2SA1576A-T106
BUFF
Q8302
2SC4081-R
BUFF
Q8303
2SC4081-R
BUFF
Q8304
2SC4081-R
BUFF
Q8306
2SC4081-R
BUFF
Q8308
2SC4081-R
BUFF
Q8309
2SC4081-R
BUFF
FL8301
EMI
+9V
+6.5V
+5VA
+5VD
SUB-CV
SUB-Y
SUB-C
SDA
SCL
COMP R
COMP L
TO J1/5. J2/5_17
TO J1/5. J4/5_22
TO J1/5. J2/5_21
TO J1/5. J2/5_20
TO J1/5. J2/5_18
TO J1/5. J2/5_19
A GND TO J1/5. J2/5_4
TO J1/5. J1/5. 2/5. 3/5. 4/5. 5/5_10
TO J1/5. J3/5_14
TO J1/5. J3/5_15
TO J1/5. J5/5_3
TO J1/5. J2/5. 3/5. 4/5_2
J (1/5)
(AV SW)
CN8304
64P
BTOB
TO A (1/2) BOARD
CN1180


IC8306
CXA2163AQ
MAIN
COLOR DECODER
IC8310
TDA9178T/N1.118
: 40H BOOSTER
IC8312
TC7SET08FU-TE85L
BUFF
IC8309
MM1115XFBE
V SEL.
D8331
MMDL914-T1
Q8310
2SC4081-R
BUFF
Q8311
2SC4081-R
BUFF
Q8312
2SC4081-R
BUFF
Q8319
2SA1576A-T106
BUFF
Q8320
2SA1576A-T106
BUFF
Q8321
2SA1576A-T106
BUFF
Q8326
2SC4081T
BUFF
Q8327
UN2213
SW
Q8328
UN2213
SW
Q8329
2SC4081-R
U BUFF
Q8330
2SC4081-R
U BUFF
Q8331
2SC4081-R
V BUFF
Q8332
2SC4081-R
V BUFF
Q8333
2SC4081-R
U AMP
Q8334
2SC4081-R
U BUFF
Q8335
2SC4081-R
V AMP
Q8336
2SC4081-R
V BUFF
Q8361
2SC4081-R
Y BUFF
Q8362
2SC4081-R
U BUFF
Q8363
2SC4081-R
V BUFF
Q8364
2SA1576A-T106
BUFF
Q8305
2SA1576A
Y BUFF
TO J2/5. J1/5_20
TO J2/5. J1/5_2 +5VA
TO J2/5. J5/5_23 C-IN
TO J2/5. J5/5_24 COMP V IN
TO J2/5. J5/5_25
TO J2/5. J5/5_26 FSC
TO J2/5. J5/5_27
TO J2/5. J1/5_16
TO J2/5. J1/5_17
TO J2/5. J1/5_1 +9V
TO J2/5. J1/5_18
TO J2/5. J1/5_19
TO J2/5. J1/5_2. 3/5. 4/5_10
TO J2/5. J1/5_21
TO J2/5. J3/5. 4/5_28
TO J2/5. J3/5. 4/5_29
R-SW TO J2/5. J1/5_13
L-SW TO J2/5. J1/5_12
A GND
TO J2/5. J1/5_4
MAIN-C2
MAIN-CV2
MAIN-C
MAIN-Y
PAL-C
PAL-Y
NT-C OUT
NT-Y OUT
VIDEO
AUDIO R
AUDIO L
SDA
SCL
+5V
+9V
HP. M
VP. M
Y. M
V. M
U. M
COMP Y
COMP BY
COMP RY
Y/B-Y/R-Y
J (2/5)
(COLOR DECODER)
B-SS893<CH. >-J. .-P2

J (3/5)

(COMPONENT I/F, INPUT TERMINAL)

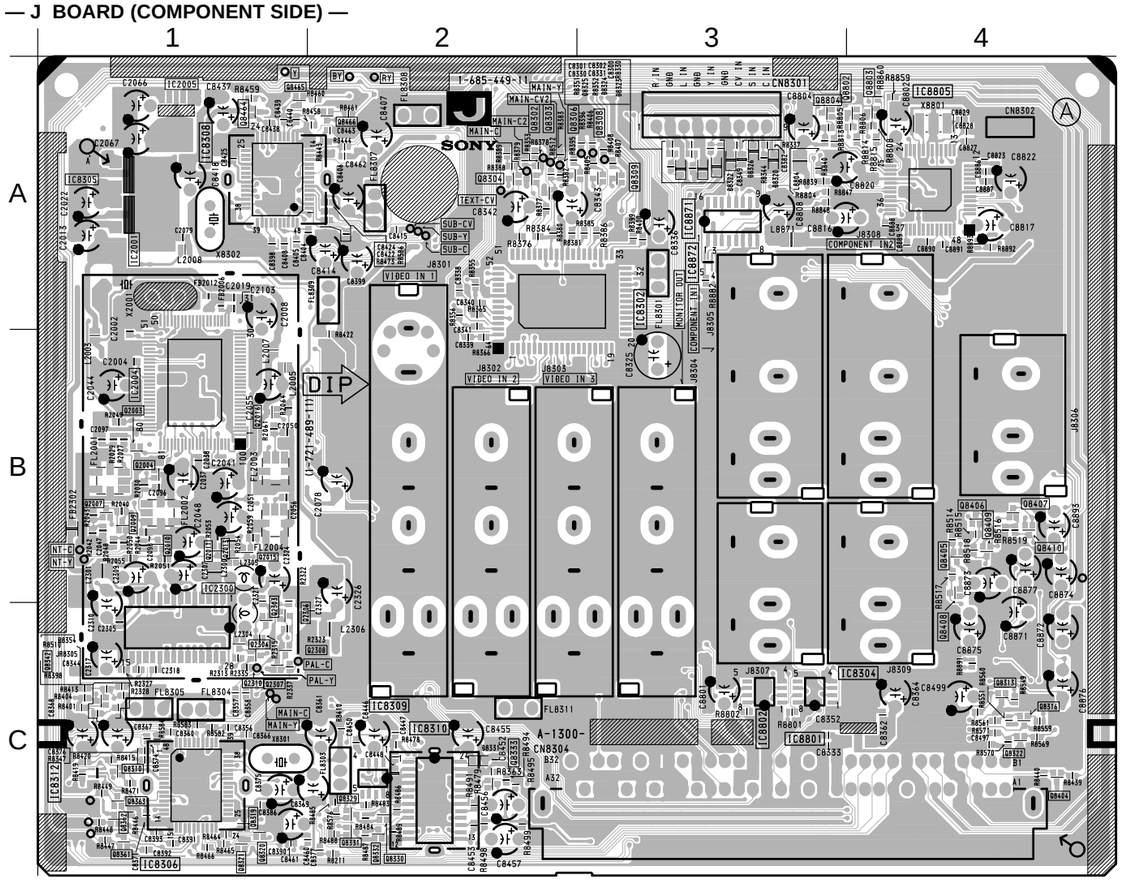
J (4/5)
(SUB COLOR DECODER)

J (5/5)
(3D COMB FILTER)

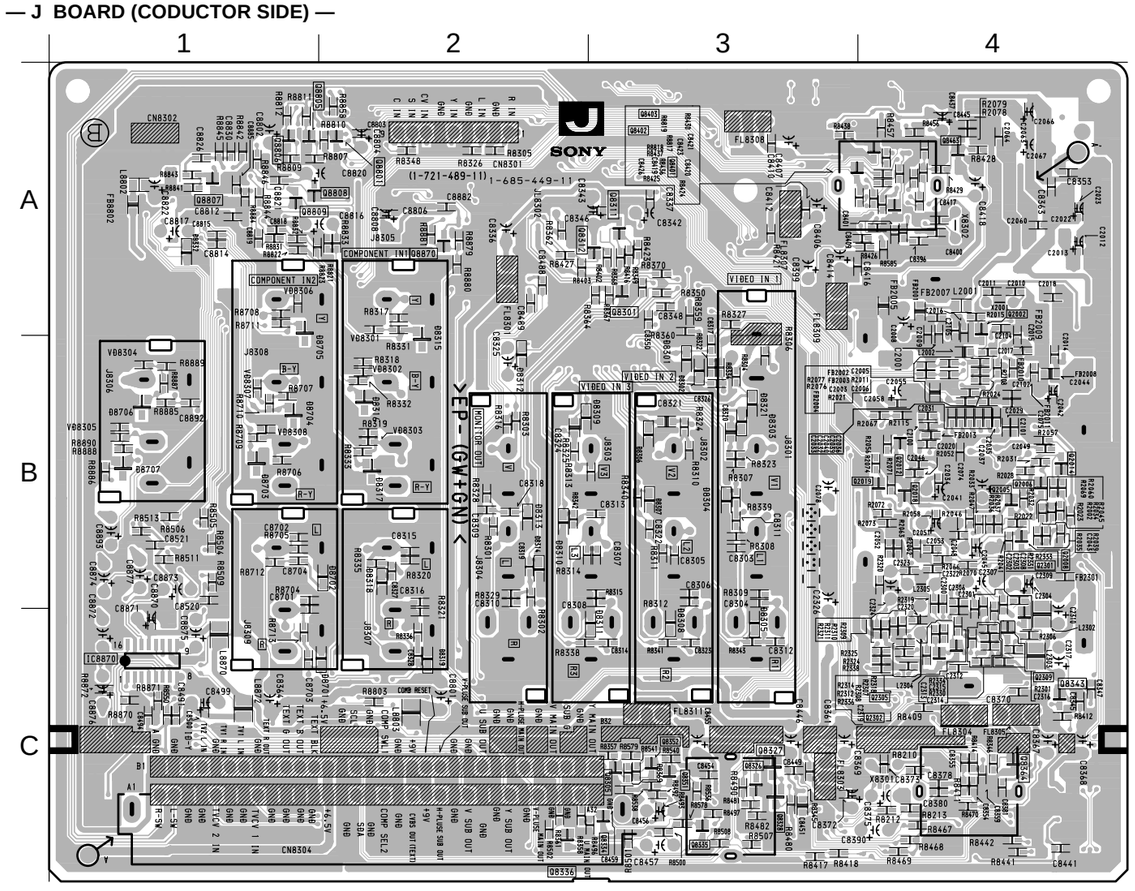
2.5V	A2.5V
2.5V-2	D2.5V
5V	A5V
5V-2	D5V
3.3V-2	D3.3V
9V	9V

J [AV SW, COLOR DECODER, CONPONENT I/F, 3D COMB FILTER]

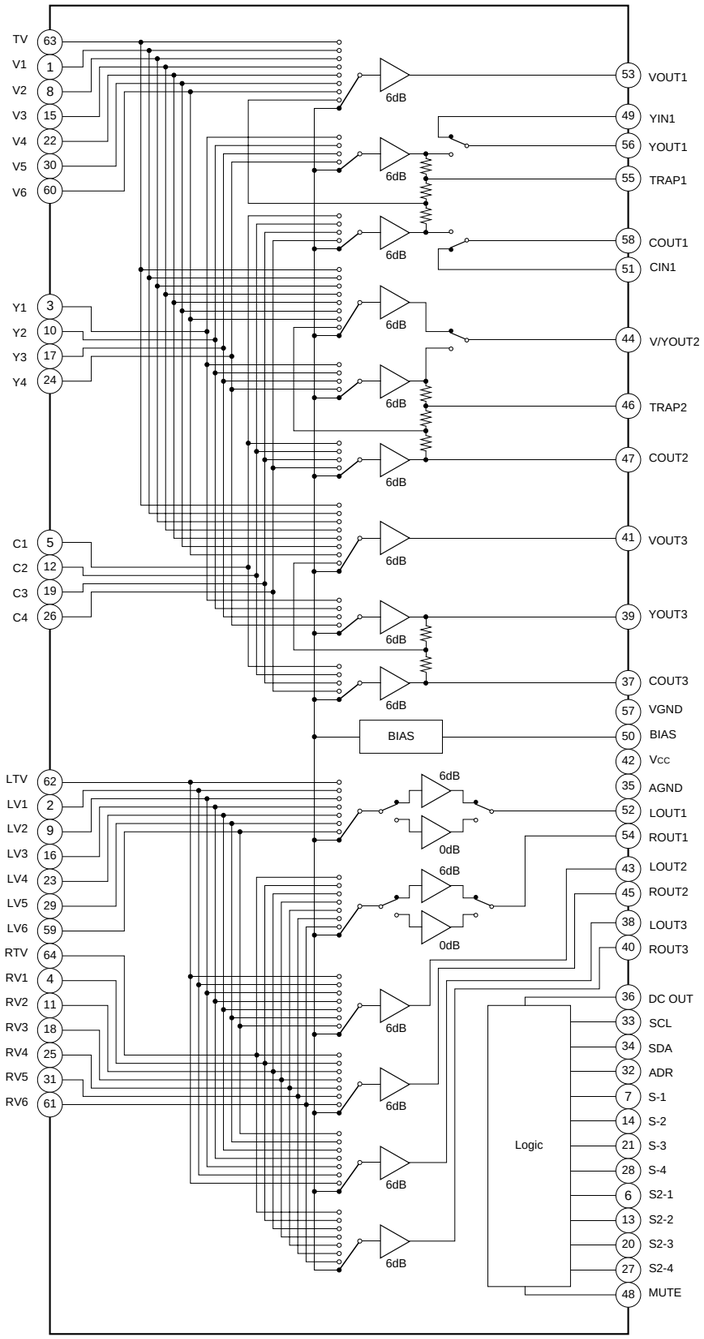
— J BOARD (COMPONENT SIDE) —



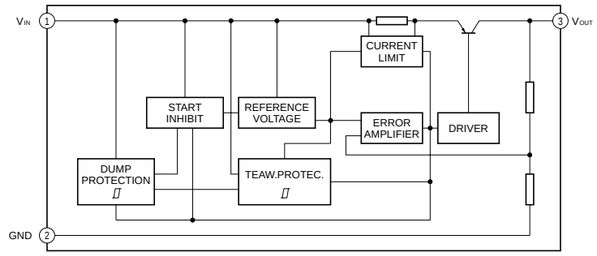
— J BOARD (CODUCTOR SIDE) —



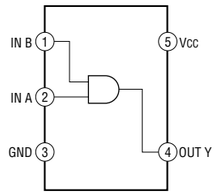
- **J(1/5) BOARD IC8302 : CXA2069Q**



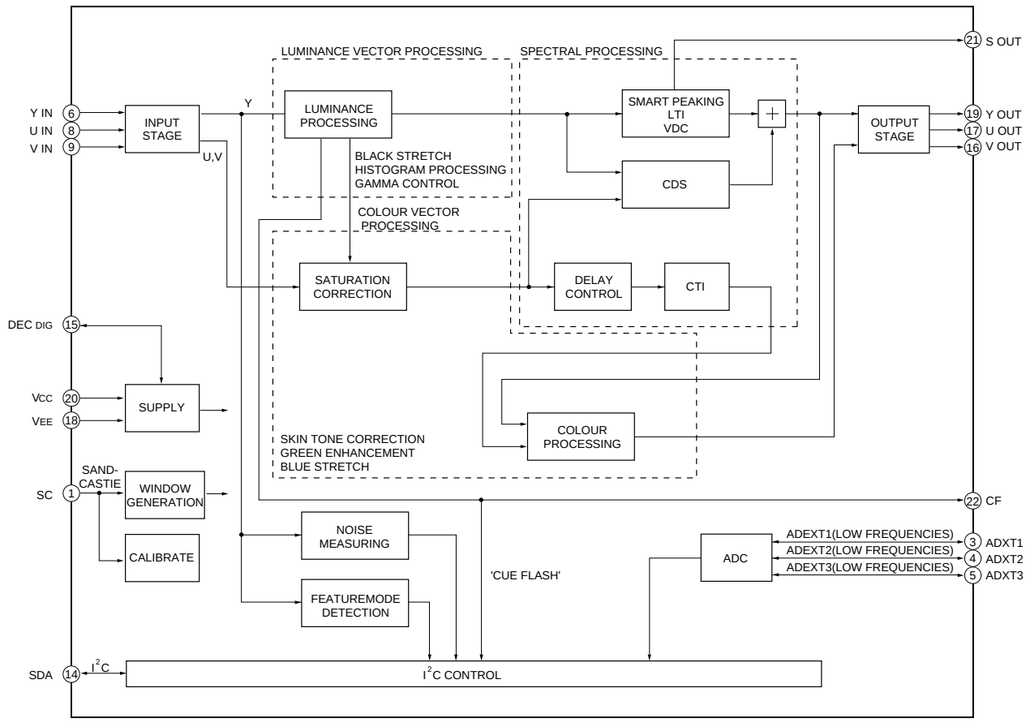
- **J(1/5) BOARD IC8304, 8305 : LF50CDDT-TR**



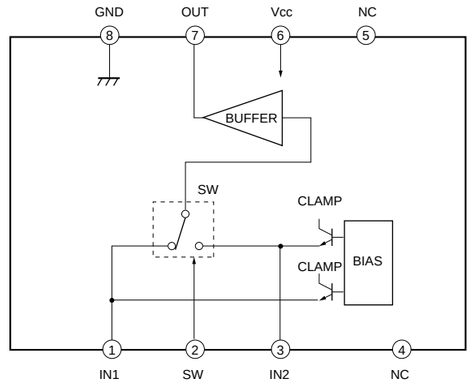
- **J(2/5) BOARD IC8312 : TC7SET08FU**
  J(4/5) BOARD IC8872 : TC7SET08FU



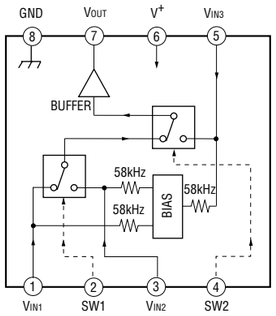
- **J(2/5) BOARD IC8310 : TDA9178**



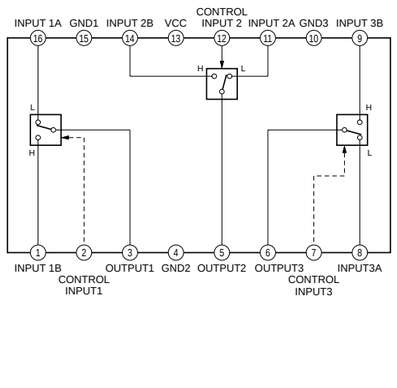
- **J(2/5) BOARD IC8309 : MM1111XFBE**



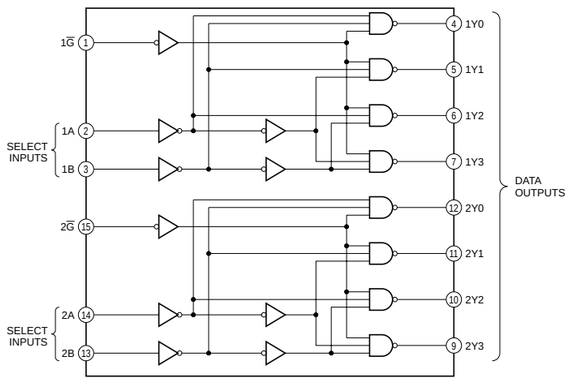
• J(3/5) BOARD IC8801, 8802 : NJM2521M



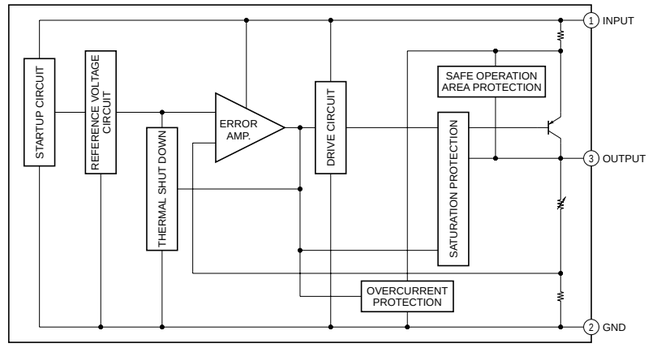
• J(4/5) BOARD IC8870 : M52055FP



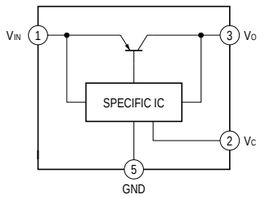
• J(4/5) BOARD IC8871 : SN74LV4053ANSR



• J(5/5) BOARD IC2001 : UPC2925T-E1



• J(5/5) BOARD IC2005 : PQ3DZ53



•J(1/5)BOARD WAVEFORMS

① 1.0VP-P(H)	② 2.0VP-P(H)	③ NTSC 0.5VP-P(H)	③ SECAM 0.5VP-P(H)
③ PAL 0.7VP-P(H)	④ PAL 1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)	⑤ PAL1.2VP-P(H) NTSC/SECAM 0.9VP-P(H)	

•J(2/5) BOARD WAVEFORMS

① 2.0VP-P(H)	② 5.2VP-P(16.2MHz)	③ PAL 1.0VP-P(H) NTSC/SECAM 0.8VP-P(H)	④ PAL1.0VP-P(H) NTSC/SECAM 0.8VP-P(H)
⑤ NTSC 0.5VP-P(H)	⑤ SECAM 0.5VP-P(H)	⑤ PAL 0.7VP-P(H)	⑥ 0.9VP-P(H)
⑦ 0.6VP-P(H)	⑧ 1.0VP-P(H)	⑨ 0.5VP-P(H)	

•J(3/5)BOARD WAVEFORM

① 96.5mVP-P (MHz)

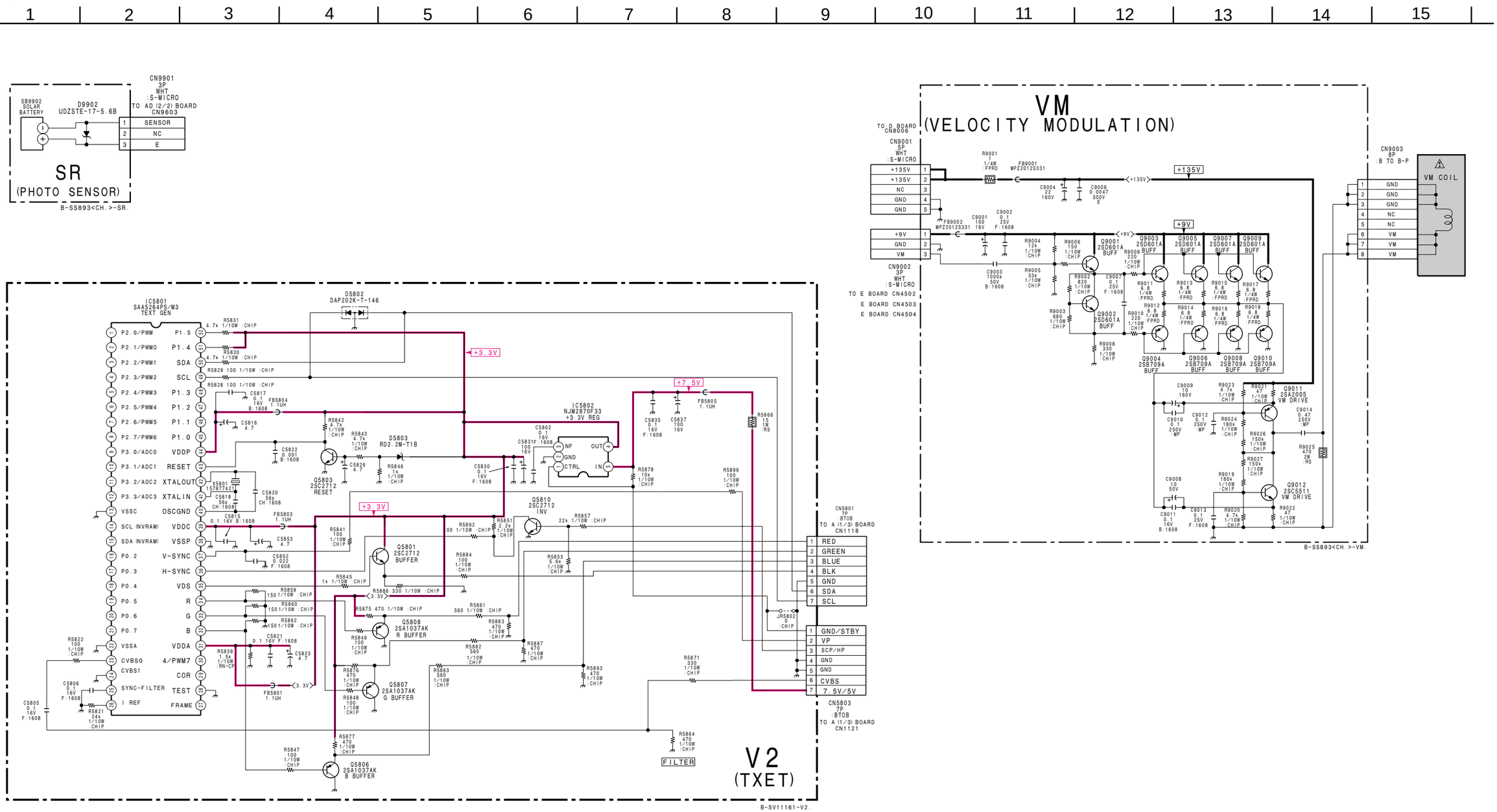
•J(4/5)BOARD WAVEFORM

① 300mVP-P (16.2MHz)

•J(5/5)BOARD WAVEFORMS

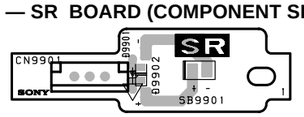
① 2.3VP-P(MHzH)	② 3.2VP-P(H)	③ 0.3VP-P(H)	④ 0.9VP-P(H)	⑤ 0.9VP-P(H)

(11) SR, V2 and VM Boards

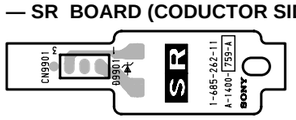


SR [PHOTO SENSOR]

— SR BOARD (COMPONENT SIDE) —



— SR BOARD (CODUCTOR SIDE) —



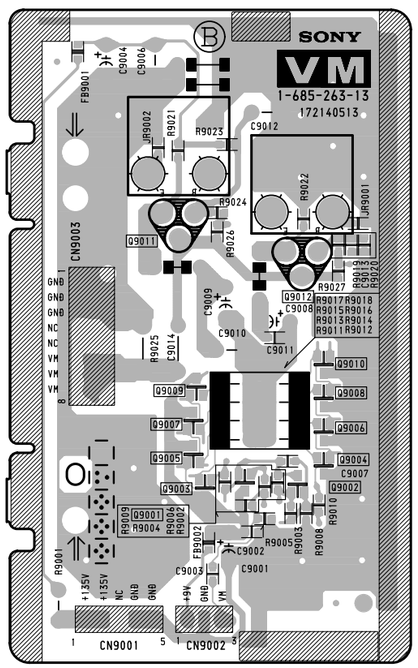
- **SR BOARD SEMICONDUCTOR LOCATION**

Ref.	✻
D9902	③

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

VM [VELOCITY MODULATION]

— VM BOARD (CODUCTOR SIDE) —



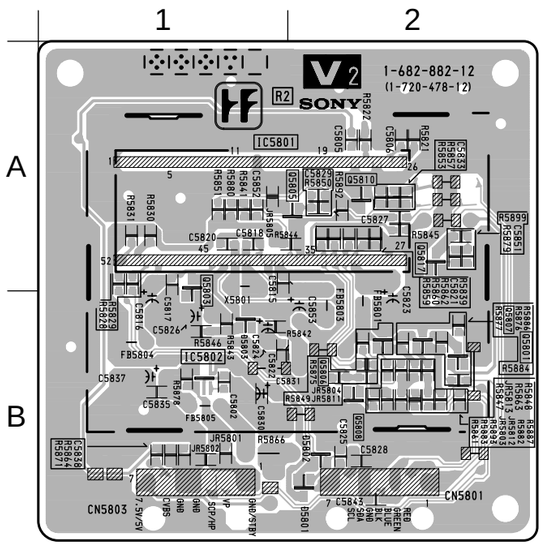
- **VM BOARD SEMICONDUCTOR LOCATION**

Ref.	✻
Q9001-Q9010	③

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

V2 [TEXT]

— V2 BOARD (CODUCTOR SIDE) —



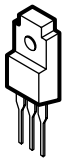
- **V2 BOARD SEMICONDUCTOR LOCATION**

Ref.	✻
D5802	⑩
D5803	④
Q5801, 5803 Q5806-5808 Q5810	①

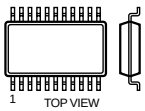
✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 80)

6-5. SEMICONDUCTORS

BA05T
BA09T
BA12T

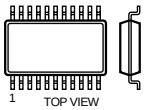


BA9759F-E2



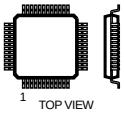
18pin SOP

CD0031AM



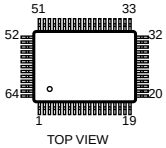
48pin SOP

CM0017AF

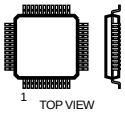


100pin QFP

CXA2069Q
CXA2170Q
CXP86460-644Q

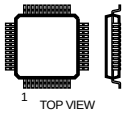


CXA2163AQ-T6
CXA2171Q
CXD2309AQ-T6



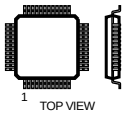
48pin QFP

CXA3506R



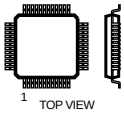
144pin QFP

CXD2095AQ



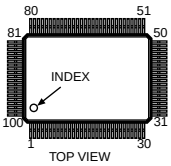
208pin QFP

CXD9509AQ

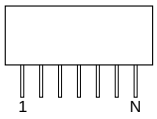


240pin QFP

CXP961048-003Q
MB94918RPF-G-149-BND
TC90A90F(BH,DRY)
UPD64083GF-3BA



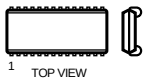
DM-58



MARKING SIDE VIEW

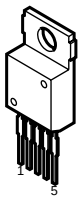
• pin 1 - N

IS41C16256-35K

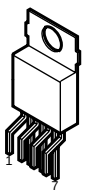


40pin SOJ

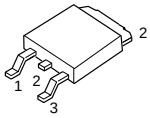
LA6500-FA
LA6500P-FA



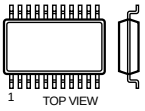
LA78045



LF50CDT-TR
NJM2391DL1-33(TE1)
UPC2925T-E1

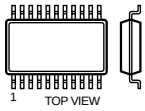


M12L16161A-7T
MT48LC1M16A1TG-6S
W981616BH-7-EL10



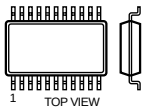
50pin SOP

M24128-BWMN6T
M24C32-WMN6T(A)
MM1115XFBE
MM1482BFBE
NJM2068V-TE2
NJM2521M-TE1
NJM2903M
NJM2903M-TE2
NJM2904M
NJM2904M(TE2)
NJM4558M-TE2
NJM4558V-TE2
NJM4560M
NJM4560M-TE2
UPC4558G2



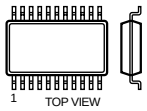
8pin SOP

M52055FP
SN74LV4053ANSR



16pin SOP

MC14066BF
MC14066BFEL
TLC2933IPWR-12



14pin SOP

MCZ3001D

18pin DIP

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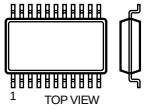
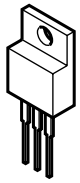
MT48LC2M32B2TG-7

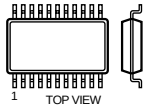


86pin SOP

NJM7812FA

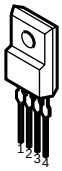


NJW1139GK1-TE2

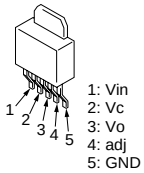


40pin SOP

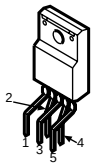
PQ05RD11
PQ05RD21
PQ05RF21



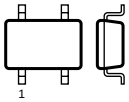
PQ07VZ012ZP
PQ3DZ53U
PQ3TZ53U



PQ1CG2032FZ
PQ5EV3

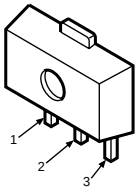


PST9120NL
PST9143NL
PST9145NL
TC7SET08FU(TE85L)
TC7SET08FU(TE85R)
TC7W04FU
TC7W04FU(TE12R)

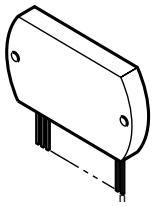


5pin CHIP

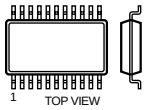
S-80743AL-A7-S
S-80743AL-A7-T1



STK392-560

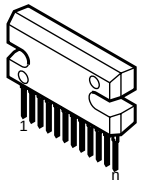


TC90A69F (ELP)

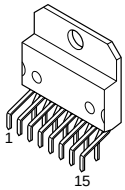


28pin SOP

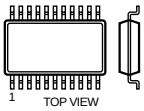
TDA6120Q/N2/S1



TDA7481



TDA9178T/N1.118



24pin SOP

UPC1093J-1-T

UPC393C

8pin DIP

DTA114EKA-T146
DTC114EU
DTC114EUA-T106
DTC144EKA
DTC144EKA-T146
UN2213
UN2213-TX
UN5213
UN5213-TX
2SA1037AK-T146-QR
2SA1037AK-T146-R
2SA1226-E4
2SA1226-T1E4
2SA1576A-T106-QR
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-T-146-QR
2SC4081-R
2SC4081-S
2SC4081T106R
2SC4081T106S
2SD1782K-T146-R
2SD601A-Q
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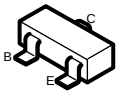

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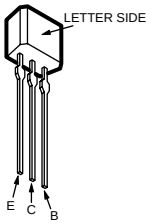
DTC144ESA-TP



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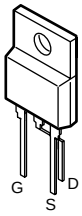
2SJ585LS-CC11



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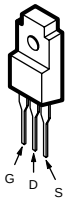

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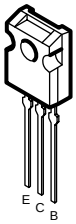
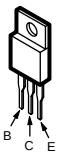
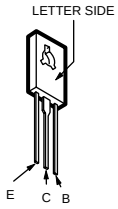


2SA2005
2SC5511



2SC2688(5)-LK



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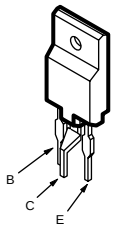

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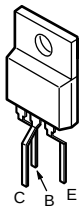

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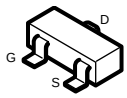
2SK2034-TE85L



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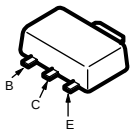

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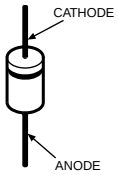
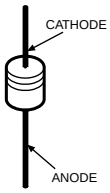
D10SC4M-F

D10SC4MR

D1NL20U-TA2



D1NS4
D1NS4-TA2
D2L20U
D2L20U-F
D2L20U-TA
HZS9.1NB2
RB441Q-40T-77
RD20ESB2
RD30ESB2
RD30ES-T1B2
RD5.1ESB2
RD5.6ESB2
RD9.1ES-T1B



D1NS4-TR
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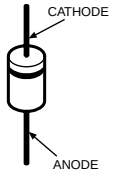
GP08D
GP08DPKG23
MTZJ-T-77-20B
MTZJ-T-77-22B
MTZJ-T-77-5.1B
MTZJ-T-77-5.6B
RGP02-17EL-6433
RGP02-17PKG23
RGP10GPKG23
10ERA60-TP
1SS83
1SS83TD
D032



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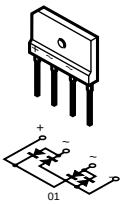
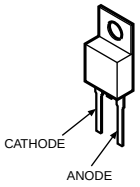
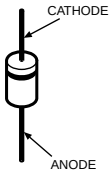
D4SBS6
D6SB60L
S1VBA20
D029



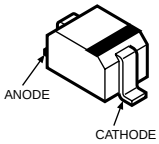
D5S4M
D021



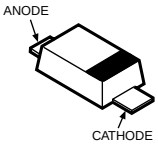
ERA22-08
S2L20UF
D030



MA111-TX
MMDL914T1
RD5.6SB3
RD5.6SB3-T1
RD5.6SB-T1
RD9.1SB
RD9.1SB-T1
UDZSTE-1718B
UDZSTE-1727B
UDZSTE-1733B
UDZSTE-174.7B
UDZSTE-175.1B
UDZSTE-175.6B
UDZSTE-176.2B
UDZSTE-177.5B
UDZ-TE-17-7.5B
1SS355TE-17
D219



MA2S111-(K8).SO
RB501V-40TE-17
D299



02CZ5.6-TE85L
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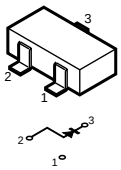

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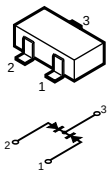
1SS301-TE85L
D064



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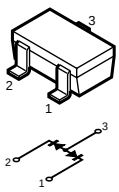
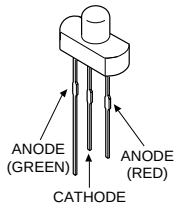


SPR-325MVW
L231

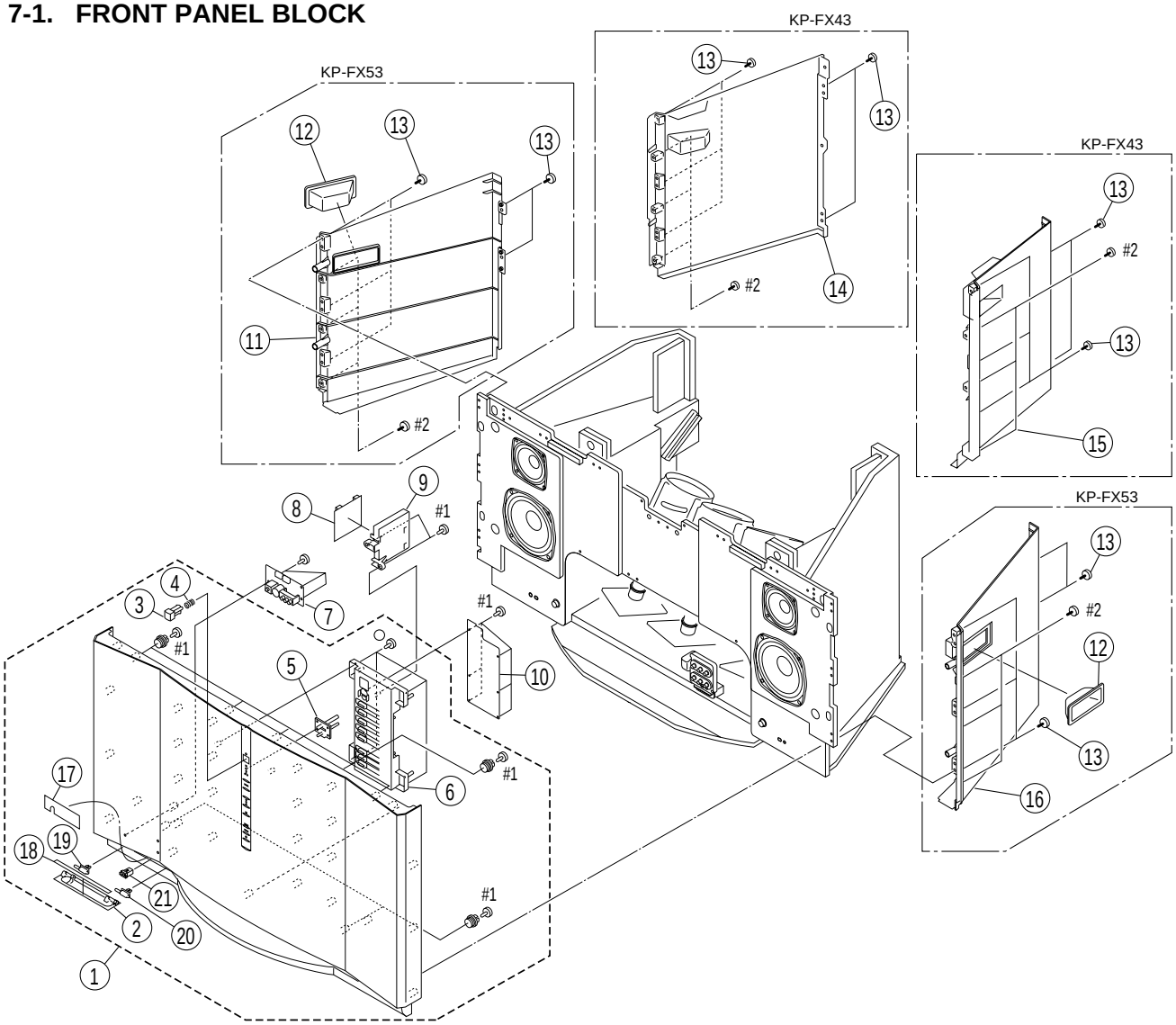


SECTION 7
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

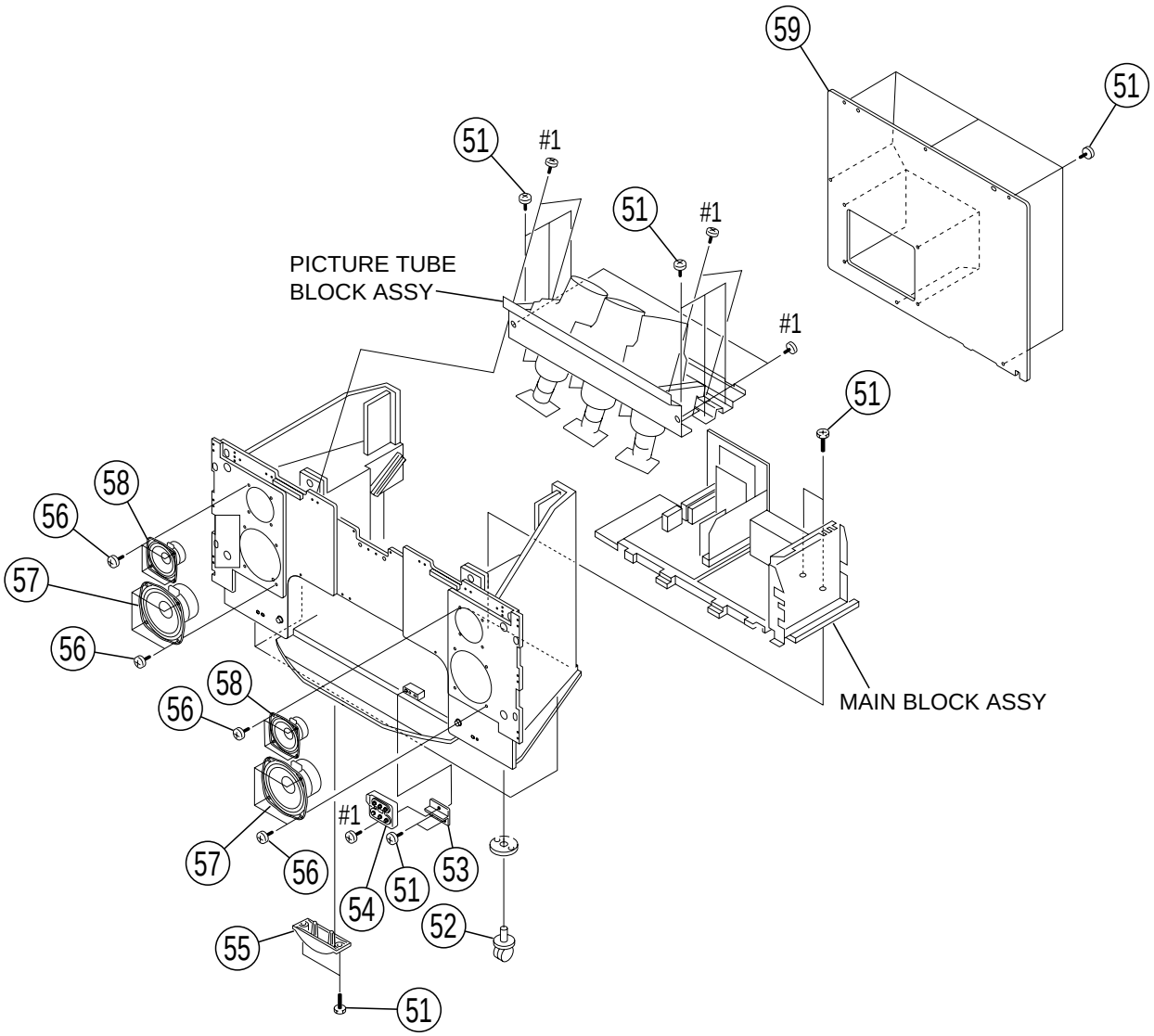
7-1. FRONT PANEL BLOCK



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4040-551-1	PANEL, FRONT (53) ASSY	2-6,17-21 (KP-FX53M31/M61/M91)
	X-4040-555-1	PANEL (43) ASSY, FRONT	2-6,17-21 (KP-FX43M31/M61/M91)
2	4-089-875-01	DOOR	
3	4-089-872-01	BUTTON, POWER	
4	4-066-103-11	SPRING, COMPRESSION	
5	4-087-025-01	GUIDE, LED	
6	4-089-873-01	BUTTON, CONTROL	
7	* A-1401-488-A	H3 MOUNT	
8	* A-1401-207-A	H1 MOUNT	
9	* 4-090-314-01	BRACKET, H PWB	
10	* A-1401-208-A	H2 MOUNT	
11	4-086-335-01	PANEL, SIDE (53L)	(KP-FX53M31/M61/M91)
12	4-089-124-11	HANDLE (KP-FX43M31/M61/M91)	
13	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
14	4-086-642-01	PANEL (53L), SIDE	(KP-FX43M31/M61/M91)
15	4-086-643-01	PANEL (43R), SIDE	(KP-FX53M31/M61/M91)
16	4-086-336-01	PANEL, SIDE (53R)	(KP-FX53M31/M61/M91)
17	4-089-880-01	LABEL, TERMINAL (A)	
18	4-089-154-01	LABEL (INDICATION), TERMINAL	
19	3-703-035-11	SHAFT, LID	
20	4-045-250-01	DAMPER	
21	4-047-464-01	CATCHER, PUSH	
#1	7-685-648-79	+BVTP 3X12	
#2	7-685-663-79	+BVTP 4X16	

7-2. CABINET BLOCK (KP-FX53)

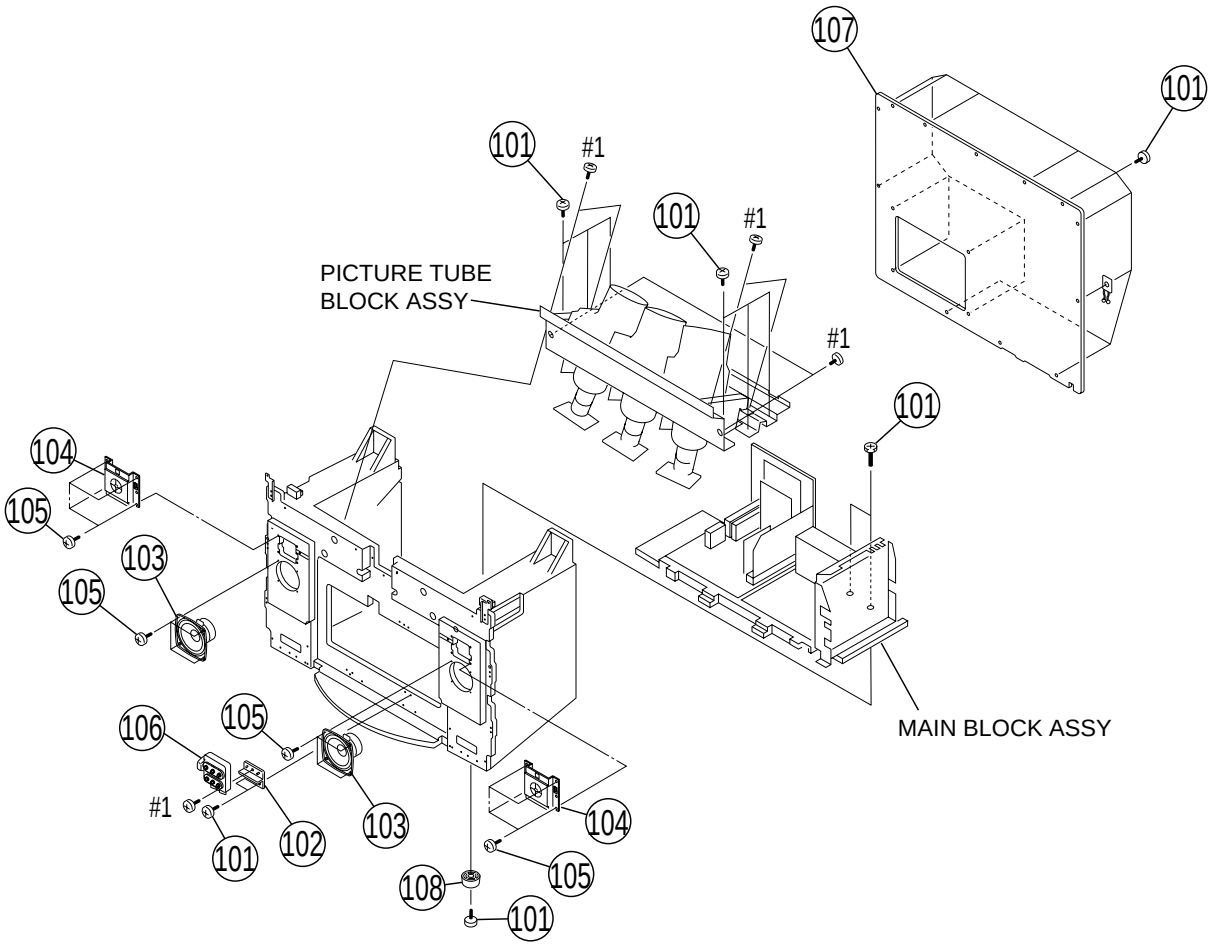
The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
52	4-075-244-01	CASTER (30 DIA.)	
53	* 4-076-722-02	BRACKET, FP	
54	⚠ 1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE)	
55	4-085-858-11	FOOT, FRONT	
56	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
57	1-825-203-11	LOUDSPEAKER (16CM)	
58	1-825-204-11	LOUDSPEAKER (10CM)	
59	* 4-089-340-11	BOARD, REAR (53)	
#1	7-685-663-79	+BVTP 4X16	

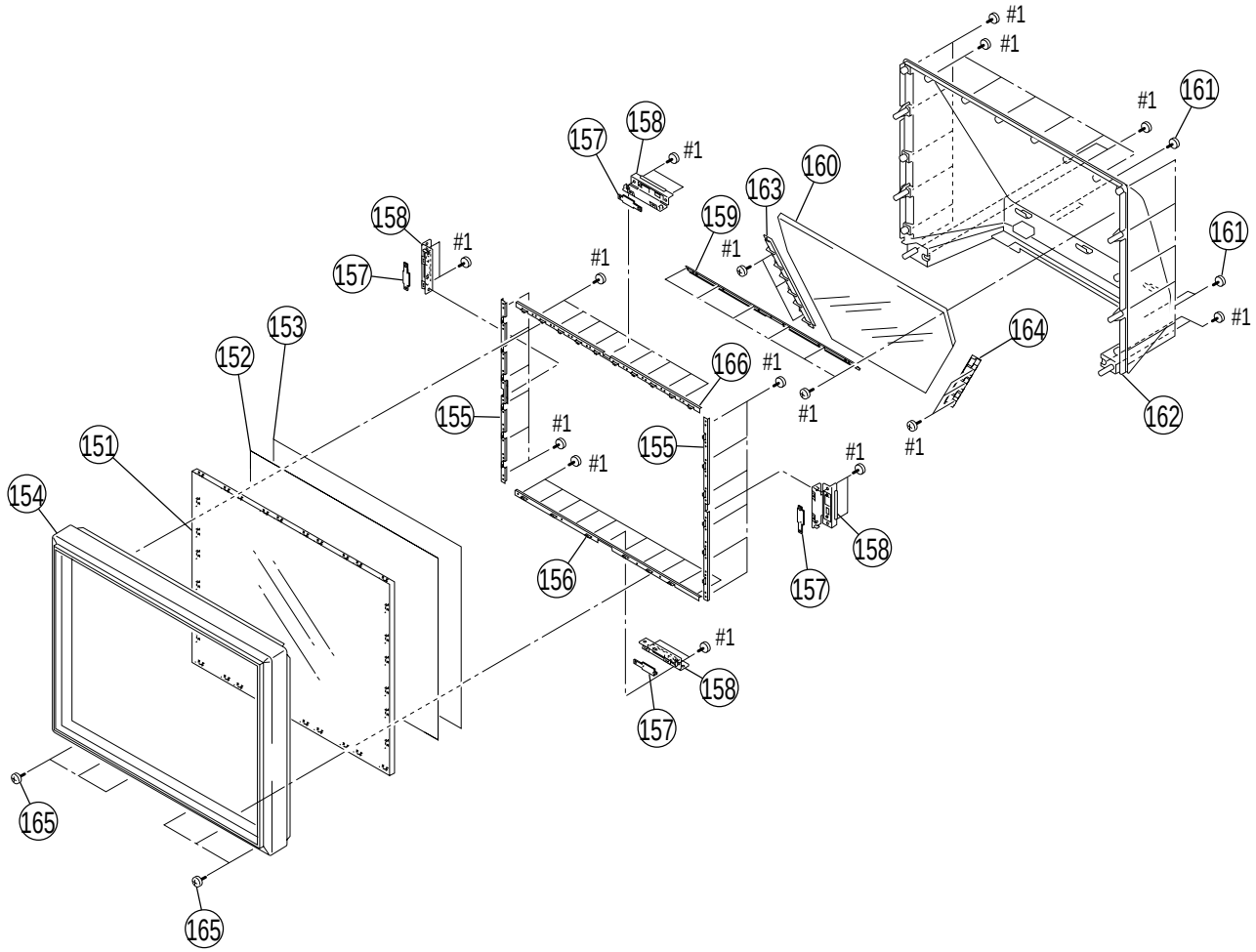
7-3. CABINET BLOCK (KP-FX43)

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.



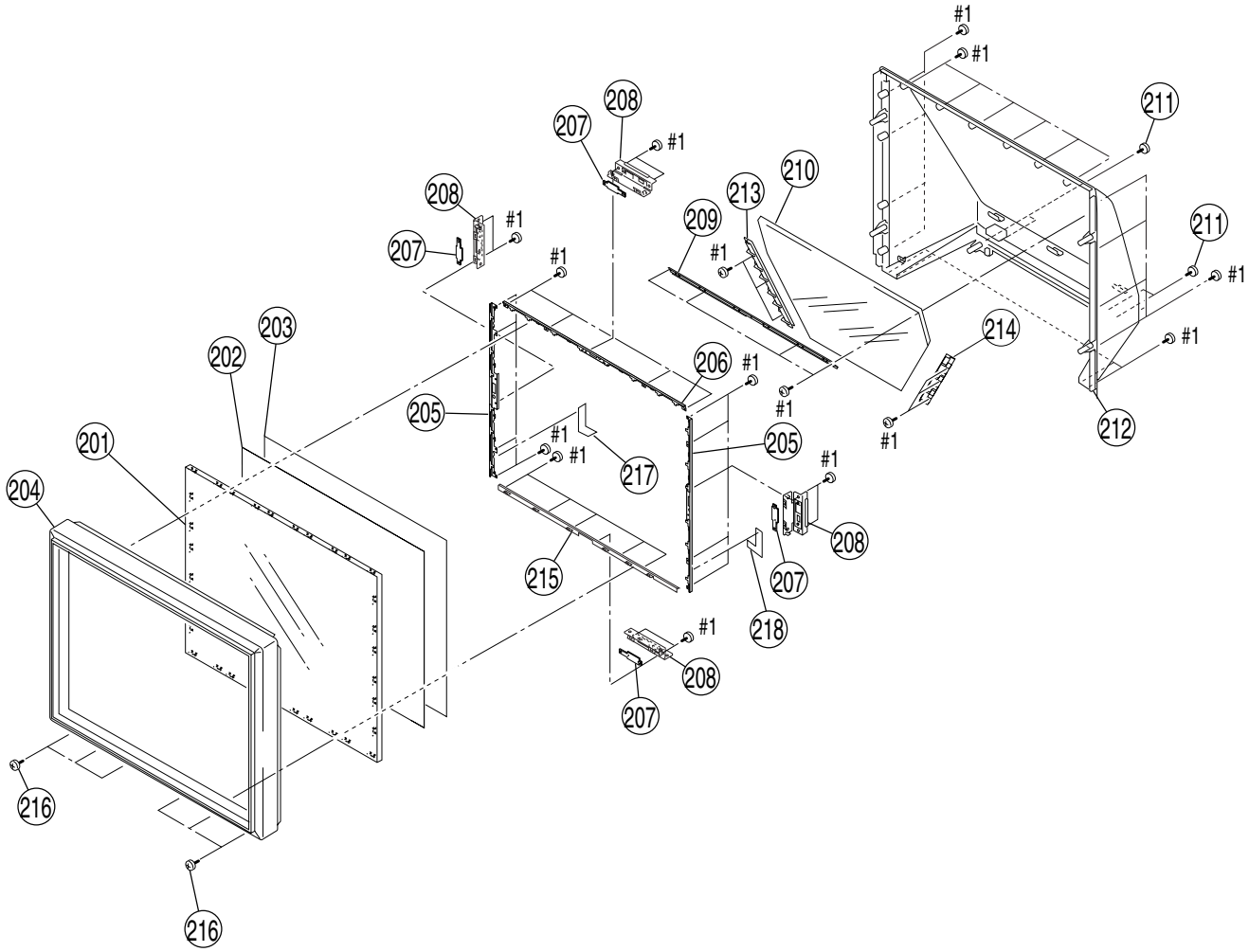
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
102	* 4-076-722-02	BRACKET, FP	
103	1-825-201-11	LOUDSPEAKER (12CM)	
104	1-825-202-11	LOUDSPEAKER (2.8CM)	
105	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
106	⚠ 1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE)	
107	* 4-086-653-11	BOARD (43), REAR	
108	4-076-577-01	FOOT	
#1	7-685-663-79	+BVTP 4X16	

7-4. BEZENET AND MIRROR COVER BLOCK (KP-FX53)



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-089-284-11	SCREEN (53), CONTRAST	
152	4-089-285-11	PLATE (53L), DIFFUSION	
153	4-089-286-11	PLATE (53F), DIFFUSION	
154	X-4040-550-1	BEZEL (53) ASSY	
155	* 4-089-879-01	HOLDER (53 SIDE), SCREEN	
156	* 4-089-878-01	HOLDER (53 LOWER), SCREEN	
157	* A-1400-759-A	SR MOUNT	
158	* 4-089-876-01	HOLDER, SENSOR	
159	* 4-088-468-01	HOLDER (UPPER), MIRROR	
160	4-089-338-11	MIRROR (53), REFLECTION	
161	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
162	* 4-086-334-01	COVER, MIRROR (53)	
163	* 4-086-645-01	HOLDER (SL), MIRROR	
164	* 4-086-646-01	HOLDER (SR), MIRROR	
165	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
166	* 4-089-877-01	HOLDER (53 UPPER), SCREEN	
#1	7-685-663-79	+BVTP 4X16	

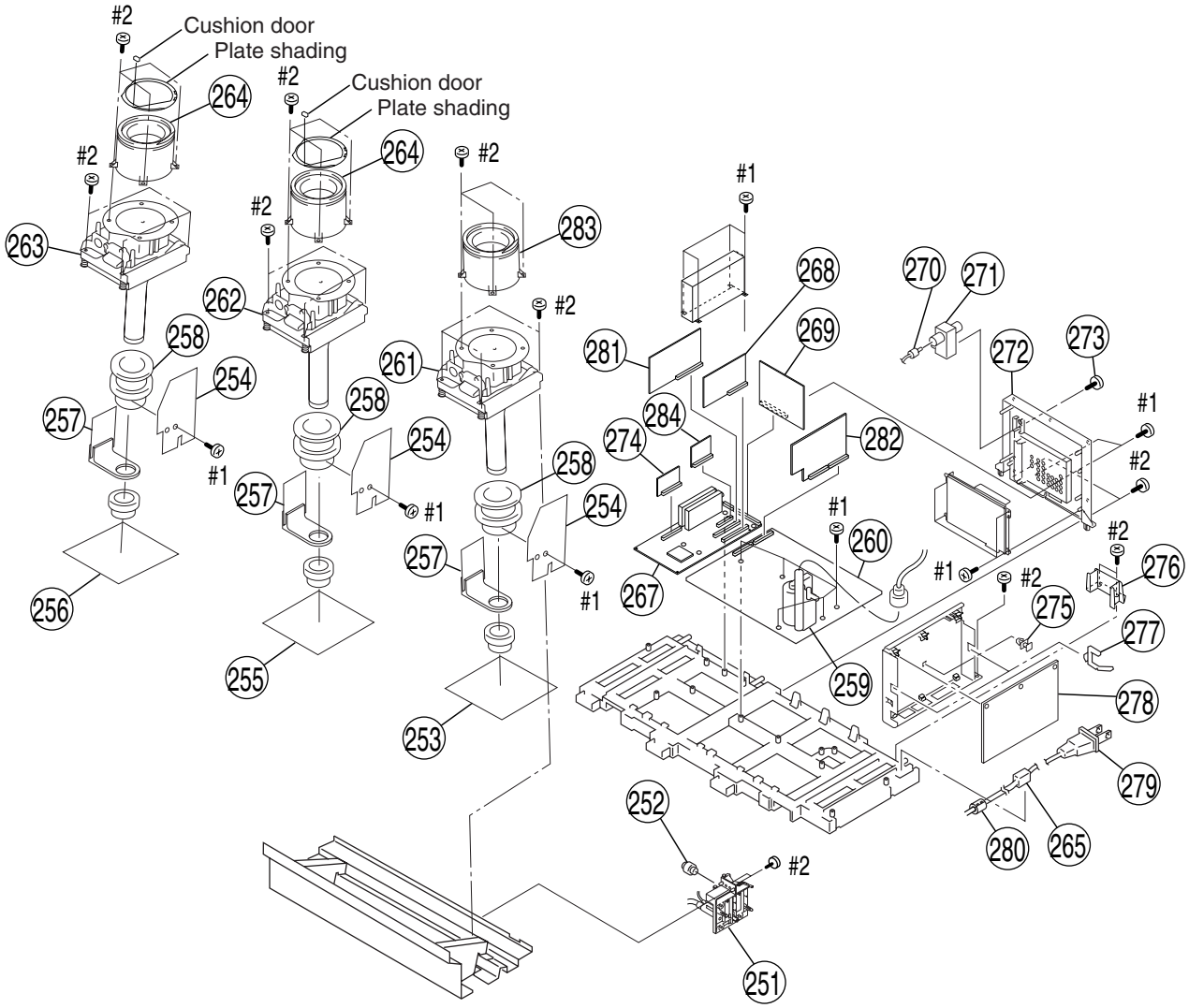
7-5. BEZENET AND MIRROR COVER BLOCK (KP-FX43)



REF.NO.	PART NO.	DESCRIPTION	REMARK
201	4-089-287-11	SCREEN (43), CONTRAST	
202	4-091-897-11	PLATE (43L), DIFFUSION	
203	4-089-289-11	PLATE (43F), DIFFUSION	
204	X-4040-554-1	BEZEL (43) ASSY	
205	* 4-089-886-01	HOLDER (43 SIDE), SCREEN	
206	* 4-089-884-01	HOLDER (43 UPPER), SCREEN	
207	* A-1400-759-A	SR MOUNT	
208	* 4-089-876-01	HOLDER, SENSOR	
209	* 4-086-648-01	HOLDER (TOP), MIRROR	
210	4-089-324-11	MIRROR (43)	
211	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
212	* 4-086-641-01	COVER (43), MIRROR	
213	* 4-086-645-01	HOLDER (SL), MIRROR	
214	* 4-086-646-01	HOLDER (SR), MIRROR	
215	* 4-089-885-01	HOLDER (43 LOWER), SCREEN	
216	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
217	4-092-168-01	BRACKET, HOLDER (43L)	
218	4-092-167-01	BRACKET, HOLDER (43R)	
#1	7-685-663-79	+BVTP 4X16	

7-6. MAIN BRACKET AND PICTURE TUBE BLOCK

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.



REF.NO.		PART NO.	DESCRIPTION	REMARK
251	⚠	8-598-955-32	BLOCK ASSY, HV HVB-1031	
252		4-373-137-01	CAP (Z), RUBBER	
253	*	A-1401-192-A	CB BOARD, MOUNT	
254	*	4-085-133-12	PWB PROTECTION SHEET	
255	*	A-1401-191-A	CG BOARD, MOUNT	
256	*	A-1401-190-A	CR BOARD, MOUNT	
257	*	A-1401-588-A	VM BOARD, MOUNT (VAR)	
258	⚠	1-451-537-13	DEFLECTION YOKE	
259	⚠	1-453-285-41	FBT ASSY NX-4006//M3P4	
260	*	A-1300-890-A	D BOARD, COMPLETE	
261	⚠	1-451-557-15	CRT P16LXL00BMB(U)	
262	⚠	1-451-558-15	CRT P16LXL00HHA(U)	
263	⚠	1-451-559-15	CRT P16LXL00RFA(U)	
264		4-089-488-01	LENS (HSEL-02-45)	
265		4-022-115-00	HOLDER, AC CORD	
266	*	A-1401-998-A	A1 BOARD, MOUNT	
267	*	A-1300-962-A	A BOARD, MOUNT(KP-FX53M61/M91)	
	*	A-1300-963-A	A BOARD, MOUNT(KP-FX43M61/M91)	
	*	A-1302-040-A	A BOARD, MOUNT(KP-FX53M31)	
	*	A-1302-041-A	A BOARD, MOUNT(KP-FX43M31)	
268	*	A-1404-607-A	E BOARD, MOUNT	
269	*	A-1300-956-A	J BOARD, COMPLETE	
270	*	1-555-110-00	CABLE, PIN	
271		1-251-658-41	SPLITTER RF	
272		4-089-292-02	BRACKET, TERMINAL	
273		4-382-854-11	SCREW(M3X10), P, SW(+)	
274	*	A-1400-957-A	V2 BOARD, MOUNT	
275	*	4-089-377-01	SUPPORT, G	
276	*	4-046-677-11	HOLDER (B), PWB	
277	*	4-316-015-00	HOLDER, WIRE	
278	*	A-1300-994-A	G BOARD, COMPLETE	
279	⚠	1-757-345-11	CORD, POWER (WITH FILTER) (KP-FX43M31, FX53M31)	
	⚠	1-791-439-11	CORD, POWER (WITH CONNECTOR) (KP-FX43M61/M91, FX53M61/M91)	
280		1-543-982-12	CORE, FERRITE	
281	*	A-1300-504-A	B4 BOARD, COMPLETE	
282	*	A-1300-902-A	AD BOARD, COMPLETE	
283		4-089-488-11	LENS (HSEL-02-45)	
#1		7-685-648-79	+BVTP 3X12	
#2		7-685-663-79	+BVTP 4X16	

SECTION 8
ELECTRICAL PARTS LIST

CR

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

•The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
• All resistors are in ohms
• F : nonflammable

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• CAPACITORS
PF : μμF

• There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1401-190-A	CR BOARD, MOUNT			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C9101	1-104-570-11	CERAMIC	0.001UF	10.00% 2KV	
C9102	1-162-919-11	CERAMIC CHIP	22PF	5.00% 50V	
C9103	1-164-156-11	CERAMIC CHIP	0.1UF	25V	
C9105	1-107-962-11	ELECT	22UF	20.00% 250V	
C9106	1-161-830-00	CERAMIC	0.0047UF	500V	
C9107	1-101-003-00	CERAMIC	0.0047UF	50V	
C9108	1-126-935-11	ELECT	470UF	20.00% 16V	
C9110	1-164-156-11	CERAMIC CHIP	0.1UF	25V	
C9111	1-164-156-11	CERAMIC CHIP	0.1UF	25V	
C9112	1-126-933-11	ELECT	100UF	20.00% 16V	
C9114	1-162-966-11	CERAMIC CHIP	0.0022U	10.00% 50V	
C9115	1-101-003-00	CERAMIC	0.0047UF	50V	
C9117	1-164-156-11	CERAMIC CHIP	0.1UF	25V	
C9119	1-162-318-11	CERAMIC	0.001UF	10.00% 500V	
		<CONNECTOR>			
CN9101	*1-564-511-31	PLUG, CONNECTOR 8P			
CN9102	*1-564-507-11	PLUG, CONNECTOR 4P			
CN9103	*1-564-508-11	PLUG, CONNECTOR 5P			
CN9104	1-695-915-11	TAB (CONTACT)			
CN9105	1-695-915-11	TAB (CONTACT)			
CN9107	1-785-879-11	CONNECTOR, ONE TOUCH			
CN9110	1-695-915-11	TAB (CONTACT)			
CN9111	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D9101	8-719-901-83	DIODE 1SS83TD			
D9104	8-719-901-83	DIODE 1SS83TD			
D9109	8-719-404-50	DIODE MA111-TX			
		<IC>			
IC9101	8-759-680-01	IC TDA6120Q/N2/S1			
		<JACK>			
J9101	⚠ 1-251-182-41	SOCKET, CRT			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<COIL>			
L9101	1-414-856-11	INDUCTOR	10UH		
L9102	1-414-855-31	INDUCTOR	1UH		
L9103	1-414-856-11	INDUCTOR	10UH		
		<NEON LAMP>			
NL9102	1-517-778-21	LAMP, NEON			
		<TRANSISTOR>			
Q9101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9102	8-729-028-28	TRANSISTOR 2SK2036(TE85L)			
Q9103	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9104	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9105	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
		<RESISTOR>			
R9101	1-260-133-11	CARBON	680K	5%	1/2W
R9102	1-249-425-11	CARBON	4.7K	5%	1/4W
R9103	1-216-809-11	METAL CHIP	100	5%	1/10W
R9104	1-260-132-11	CARBON	560K	5%	1/2W
R9105	1-218-696-11	METAL CHIP	1.5K	0.5%	1/10W
R9106	1-218-680-11	METAL CHIP	330	0.5%	1/10W
R9107	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R9108	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R9109	1-218-690-11	METAL CHIP	820	0.5%	1/10W
R9111	1-219-743-11	METAL	100	5%	1/2W
R9114	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
R9115	1-218-708-11	METAL CHIP	4.7K	0.5%	1/10W
R9116	1-260-328-11	CARBON	1K	5%	1/2W
R9120	1-215-926-00	METAL OXIDE	33K	5%	3W
R9121	1-260-087-11	CARBON	100	5%	1/2W
R9122	1-260-320-11	CARBON	220	5%	1/2W
R9126	1-218-748-11	METAL CHIP	220K	0.5%	1/10W
R9127	1-218-748-11	METAL CHIP	220K	0.5%	1/10W
R9129	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9131	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R9132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9133	1-216-809-11	METAL CHIP	100	5%	1/10W
R9134	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9135	1-260-087-11	CARBON	100	5%	1/2W
R9136	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
R9137	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W

CR CG CB

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<SPARK GAP>			
SG9101	1-517-729-31	GAP, SPARK			
SG9102	1-519-422-11	GAP, SPARK			
**********					
	*A-1401-191-A	CG BOARD, MOUNT			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C9201	1-107-662-11	ELECT	22UF	20.00%	250V
C9202	1-104-570-11	CERAMIC	0.001UF	10.00%	2KV
C9203	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9204	1-126-935-11	ELECT	470UF	20.00%	16V
C9205	1-164-378-11	CERAMIC CHIP	30PF	5.00%	50V
C9207	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9208	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9209	1-101-003-00	CERAMIC	0.0047UF		50V
C9211	1-126-933-11	ELECT	100UF	20.00%	16V
C9213	1-161-830-00	CERAMIC	0.0047UF		500V
C9214	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C9216	1-101-003-00	CERAMIC	0.0047UF		50V
C9217	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9219	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
		<CONNECTOR>			
CN9201	*1-564-511-11	PLUG, CONNECTOR 8P			
CN9202	*1-564-511-11	PLUG, CONNECTOR 8P			
CN9203	*1-564-507-11	PLUG, CONNECTOR 4P			
CN9204	*1-564-507-11	PLUG, CONNECTOR 4P			
CN9205	*1-564-506-11	PLUG, CONNECTOR 3P			
CN9206	*1-564-509-11	PLUG, CONNECTOR 6P			
CN9207	1-695-915-11	TAB (CONTACT)			
CN9208	1-695-915-11	TAB (CONTACT)			
CN9209	1-785-879-11	CONNECTOR, ONE TOUCH			
CN9210	1-695-915-11	TAB (CONTACT)			
CN9211	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D9201	8-719-901-83	DIODE 1SS83TD			
D9206	8-719-901-83	DIODE 1SS83TD			
D9209	8-719-404-50	DIODE MA111-TX			
		<IC>			
IC9201	8-759-680-01	IC TDA6120Q/N2/S1			
		<JACK>			
J9201	⚠1-251-182-41	SOCKET, CRT			
		<COIL>			
L9201	1-414-856-11	INDUCTOR	10UH		
L9202	1-414-855-31	INDUCTOR	1UH		
L9203	1-414-856-11	INDUCTOR	10UH		
		<NEON LAMP>			
NL9202	1-517-778-21	LAMP, NEON			
		<TRANSISTOR>			
Q9201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9202	8-729-028-28	TRANSISTOR 2SK2036(TE85L)			
Q9203	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9204	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
		<RESISTOR>			
R9201	1-260-133-11	CARBON	680K	5%	1/2W
R9202	1-260-132-11	CARBON	560K	5%	1/2W
R9203	1-249-425-11	CARBON	4.7K	5%	1/4W
R9204	1-216-809-11	METAL CHIP	100	5%	1/10W
R9205	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R9206	1-218-678-11	METAL CHIP	270	0.5%	1/10W
R9207	1-218-694-11	METAL CHIP	1.2K	0.5%	1/10W
R9208	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R9209	1-218-690-11	METAL CHIP	820	0.5%	1/10W
R9210	1-219-743-11	METAL	100	5%	1/2W
R9216	1-218-699-11	METAL CHIP	2K	0.5%	1/10W
R9217	1-218-708-11	METAL CHIP	4.7K	0.5%	1/10W
R9220	1-215-926-00	METAL OXIDE	33K	5%	3W
R9221	1-260-328-11	CARBON	1K	5%	1/2W
R9222	1-260-087-11	CARBON	100	5%	1/2W
R9223	1-260-320-11	CARBON	220	5%	1/2W
R9225	1-218-744-11	METAL CHIP	150K	0.5%	1/10W
R9226	1-218-744-11	METAL CHIP	150K	0.5%	1/10W
R9228	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9230	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R9231	1-260-087-11	CARBON	100	5%	1/2W
R9232	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
R9233	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
		<SPARK GAP>			
SG9201	1-517-729-31	GAP, SPARK			
SG9202	1-519-422-11	GAP, SPARK			
**********					
	*A-1401-192-A	CB BOARD, MOUNT			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C9301	1-104-570-11	CERAMIC	0.001UF	10.00%	2KV
C9302	1-101-003-00	CERAMIC	0.0047UF		50V
C9303	1-107-662-11	ELECT	22UF	20.00%	250V
C9304	1-162-920-11	CERAMIC CHIP	27PF	5.00%	50V
C9305	1-162-916-11	CERAMIC CHIP	12PF	5.00%	50V
C9306	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9307	1-126-935-11	ELECT	470UF	20.00%	16V
C9309	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9310	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9311	1-126-933-11	ELECT	100UF	20.00%	16V

CB VM

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C9312	1-161-830-00	CERAMIC	0.0047UF		500V
C9313	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9314	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C9315	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C9316	1-101-003-00	CERAMIC	0.0047UF		50V
C9318	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9319	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C9320	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
		<CONNECTOR>			
CN9301	*1-564-510-11	PLUG, CONNECTOR 7P			
CN9302	*1-564-511-11	PLUG, CONNECTOR 8P			
CN9303	*1-564-507-11	PLUG, CONNECTOR 4P			
CN9304	1-695-915-11	TAB (CONTACT)			
CN9306	1-695-915-11	TAB (CONTACT)			
CN9308	1-785-879-11	CONNECTOR, ONE TOUCH			
CN9309	*1-564-507-11	PLUG, CONNECTOR 4P			
CN9310	1-695-915-11	TAB (CONTACT)			
CN9311	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D9301	8-719-404-50	DIODE MA111-TX			
D9302	8-719-901-83	DIODE 1SS83TD			
D9303	8-719-404-50	DIODE MA111-TX			
D9309	8-719-901-83	DIODE 1SS83TD			
		<IC>			
IC9301	8-759-680-01	IC TDA6120Q/N2/S1			
		<JACK>			
J9301	⚠ 1-251-182-41	SOCKET, CRT			
		<COIL>			
L9301	1-414-856-11	INDUCTOR	10UH		
L9302	1-414-855-31	INDUCTOR	1UH		
L9303	1-414-856-11	INDUCTOR	10UH		
		<NEON LAMP>			
NL9302	1-517-778-21	LAMP, NEON			
		<TRANSISTOR>			
Q9301	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9302	8-729-028-28	TRANSISTOR 2SK2036(TE85L)			
Q9303	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9304	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9305	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9306	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR			
Q9308	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9309	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
		<RESISTOR>			
R9301	1-216-809-11	METAL CHIP	100	5%	1/10W
R9302	1-218-680-11	METAL CHIP	330	0.5%	1/10W
R9303	1-260-133-11	CARBON	680K	5%	1/2W
R9304	1-260-132-11	CARBON	560K	5%	1/2W
R9305	1-219-743-11	METAL	100	5%	1/2W
R9306	1-218-682-11	METAL CHIP	390	0.5%	1/10W
R9307	1-218-696-11	METAL CHIP	1.5K	0.5%	1/10W
R9308	1-218-684-11	METAL CHIP	470	0.5%	1/10W
R9309	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R9313	1-218-723-11	METAL CHIP	20K	0.5%	1/10W
R9314	1-218-704-11	METAL CHIP	3.3K	0.5%	1/10W
R9315	1-218-706-11	METAL CHIP	3.9K	0.5%	1/10W
R9316	1-218-698-11	METAL CHIP	1.8K	0.5%	1/10W
R9317	1-218-708-11	METAL CHIP	4.7K	0.5%	1/10W
R9318	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R9319	1-249-425-11	CARBON	4.7K	5%	1/4W
R9320	1-215-926-00	METAL OXIDE	33K	5%	3W
R9323	1-260-328-11	CARBON	1K	5%	1/2W
R9324	1-260-087-11	CARBON	100	5%	1/2W
R9325	1-260-320-11	CARBON	220	5%	1/2W
R9327	1-218-749-11	METAL CHIP	240K	0.5%	1/10W
R9328	1-218-749-11	METAL CHIP	240K	0.5%	1/10W
R9330	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9332	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R9333	1-218-699-11	METAL CHIP	2K	0.5%	1/10W
R9334	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R9335	1-249-393-11	CARBON	10	5%	1/4W
R9336	1-216-833-11	METAL SHIP	10K	5%	1/10W
R9337	1-216-833-11	METAL SHIP	10K	5%	1/10W
R9338	1-216-821-11	METAL SHIP	1K	5%	1/10W
R9339	1-260-087-11	CARBON	100	5%	1/2W
R9340	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9341	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9342	1-216-834-11	METAL CHIP	12K	5%	1/10W
R9343	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9344	1-216-845-11	METAL CHIP	100K	5%	1/10W
R9345	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9346	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9347	1-216-809-11	METAL CHIP	100	5%	1/10W
R9348	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9349	1-216-805-11	METAL CHIP	47	5%	1/10W
R9350	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
R9351	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W
		<SPARK GAP>			
SG9301	1-517-729-31	GAP, SPARK			
SG9302	1-519-422-11	GAP, SPARK			

****

*A-1401-588-A VM BOARD, MOUNT
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C9001	1-126-933-11	ELECT	100UF	20.00%	16V
C9002	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9003	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C9004	1-107-645-11	ELECT	22UF	20.00%	160V
C9006	1-161-830-00	CERAMIC	0.0047UF		500V
C9007	1-164-156-11	CERAMIC CHIP	0.1UF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C9008	1-126-964-11	ELECT	10UF	20.00%	50V
C9009	1-107-636-11	ELECT	10UF	20.00%	160V
C9010	1-137-528-11	MYLAR	0.1UF	10.00%	250V
C9011	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9012	1-137-528-11	MYLAR	0.1UF	10.00%	250V
C9013	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9014	1-117-450-11	MYLAR	0.47UF	10.00%	250V
		<CONNECTOR>			
CN9001	*1-564-508-11	PLUG, CONNECTOR 5P			
CN9002	* 1-564-506-11	PLUG, CONNECTOR 3P			
CN9003	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		<FERRITE BEAD>			
FB9001	1-469-869-21	FERRITE	0UH		
FB9002	1-469-869-21	FERRITE	0UH		
		<TRANSISTOR>			
Q9001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9004	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9006	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9008	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9009	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9010	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9011	8-729-045-05	TRANSISTOR 2SA2005			
Q9012	8-729-045-04	TRANSISTOR 2SC5511			
		<RESISTOR>			
R9001	1-249-381-11	CARBON	1	5%	1/4W
R9002	1-216-820-11	METAL CHIP	820	5%	1/10W
R9003	1-218-843-11	METAL CHIP	680	5%	1/10W
R9004	1-216-834-11	METAL CHIP	12K	5%	1/10W
R9005	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9006	1-216-811-11	METAL CHIP	150	5%	1/10W
R9008	1-218-835-11	METAL CHIP	330	5%	1/10W
R9009	1-218-831-11	METAL CHIP	220	5%	1/10W
R9010	1-218-831-11	METAL CHIP	220	5%	1/10W
R9011	1-249-391-11	CARBON	6.8	5%	1/4W
R9012	1-249-391-11	CARBON	6.8	5%	1/4W
R9013	1-249-391-11	CARBON	6.8	5%	1/4W
R9014	1-249-391-11	CARBON	6.8	5%	1/4W
R9015	1-249-391-11	CARBON	6.8	5%	1/4W
R9016	1-249-391-11	CARBON	6.8	5%	1/4W
R9017	1-249-391-11	CARBON	6.8	5%	1/4W
R9018	1-249-391-11	CARBON	6.8	5%	1/4W
R9019	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9020	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9021	1-216-805-11	METAL CHIP	47	5%	1/10W
R9022	1-216-805-11	METAL CHIP	47	5%	1/10W
R9023	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R9024	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9025	1-215-890-11	METAL OXIDE	470	5%	2W
R9026	1-216-847-11	METAL CHIP	150K	5%	1/10W
R9027	1-216-847-11	METAL CHIP	150K	5%	1/10W

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*A-1300-902-A AD BOARD, COMPLETE
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		<CAPACITOR>			
C9401	1-126-933-11	ELECT	100UF	20.00%	16V
C9402	1-126-933-11	ELECT	100UF	20.00%	16V
C9403	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9404	1-162-919-11	CERAMIC CHIP	22PF	5.00%	50V
C9405	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9406	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9407	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9408	1-162-919-11	CERAMIC CHIP	22PF	5.00%	50V
C9409	1-126-933-11	ELECT	100UF	20.00%	16V
C9410	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9411	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C9413	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9414	1-126-933-11	ELECT	100UF	20.00%	16V
C9415	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9416	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9419	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9422	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9424	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9425	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9426	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9427	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9428	1-126-933-11	ELECT	100UF	20.00%	16V
C9429	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9430	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9431	1-126-963-11	ELECT	4.7UF	20.00%	50V
C9432	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9433	1-126-933-11	ELECT	100UF	20.00%	16V
C9434	1-126-933-11	ELECT	100UF	20.00%	16V
C9440	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9441	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9442	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V
C9444	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V
C9446	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9447	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9448	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9450	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9452	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9453	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9454	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9458	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9459	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9460	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9461	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9462	1-126-933-11	ELECT	100UF	20.00%	16V
C9463	1-126-933-11	ELECT	100UF	20.00%	16V
C9464	1-126-933-11	ELECT	100UF	20.00%	16V
C9465	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9466	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9467	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9468	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9469	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9470	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C9472	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V
C9474	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9475	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9476	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9478	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9480	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9481	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9482	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9483	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9484	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9485	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9486	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9488	1-126-933-11	ELECT	100UF	20.00%	16V
C9489	1-126-933-11	ELECT	100UF	20.00%	16V
C9490	1-126-933-11	ELECT	100UF	20.00%	16V
C9491	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9492	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9493	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9494	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9495	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C9498	1-126-933-11	ELECT	100UF	20.00%	16V
C9501	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9502	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V
C9503	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9505	1-115-412-11	CERAMIC CHIP	680PF	5.00%	25V
C9506	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9508	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9509	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9511	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9512	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9514	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9515	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9516	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C9517	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9518	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9520	1-164-173-11	CERAMIC CHIP	0.0039UF	10.00%	50V
C9521	1-164-173-11	CERAMIC CHIP	0.0039UF	10.00%	50V
C9523	1-164-173-11	CERAMIC CHIP	0.0039UF	10.00%	50V
C9524	1-164-173-11	CERAMIC CHIP	0.0039UF	10.00%	50V
C9525	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9526	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9527	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9528	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9531	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9532	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9540	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9541	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9542	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9543	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9546	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9547	1-164-392-11	CERAMIC CHIP	390PF	5.00%	50V
C9548	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C9549	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C9550	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9552	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C9553	1-126-947-11	ELECT	47UF	20.00%	25V
C9554	1-126-947-11	ELECT	47UF	20.00%	25V
C9555	1-126-947-11	ELECT	47UF	20.00%	25V
C9556	1-126-916-11	ELECT	1000UF	20.00%	6.3V
C9557	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9558	1-126-933-11	ELECT	100UF	20.00%	16V
C9559	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9560	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9561	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9562	1-124-935-11	ELECT	470UF	20%	16

<CONNECTOR>

CN9400	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P	
CN9401	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P	
CN9402*	1-564-511-11	PLUG, CONNECTOR 8P	

<DIODE>

D9400	8-719-988-61	DIODE 1SS355TE-17
D9401	8-719-988-61	DIODE 1SS355TE-17
D9402	8-719-988-61	DIODE 1SS355TE-17
D9404	8-719-988-61	DIODE 1SS355TE-17
D9405	8-719-988-61	DIODE 1SS355TE-17
D9406	8-719-069-54	DIODE UDZSTE-175.1B
D9407	8-719-069-54	DIODE UDZSTE-175.1B
D9408	8-719-069-54	DIODE UDZSTE-175.1B
D9409	8-719-069-54	DIODE UDZSTE-175.1B

<FERRITE BEAD>

FB9401	1-414-445-11	FERRITE	0UH
FB9402	1-414-445-11	FERRITE	0UH
FB9403	1-414-445-11	FERRITE	0UH
FB9404	1-414-445-11	FERRITE	0UH
FB9405	1-414-445-11	FERRITE	0UH
FB9406	1-414-445-11	FERRITE	0UH
FB9407	1-414-445-11	FERRITE	0UH
FB9408	1-414-445-11	FERRITE	0UH
FB9409	1-414-445-11	FERRITE	0UH
FB9410	1-414-445-11	FERRITE	0UH
FB9411	1-414-445-11	FERRITE	0UH
FB9412	1-414-445-11	FERRITE	0UH
FB9413	1-414-445-11	FERRITE	0UH
FB9414	1-414-445-11	FERRITE	0UH
FB9415	1-414-445-11	FERRITE	0UH
FB9416	1-414-445-11	FERRITE	0UH
FB9417	1-414-445-11	FERRITE	0UH

<IC>

IC9400	8-752-932-80	IC CXP86460-645Q
IC9401	8-759-683-55	IC CM0017AF
IC9402	6-700-319-01	IC M24128-BWMN6T
IC9403	8-759-352-91	IC PST9143NL
IC9405	8-759-830-08	IC NJM2068V-TE2
IC9406	8-759-830-08	IC NJM2068V-TE2
IC9407	8-759-829-87	IC CD0031AM
IC9408	8-759-830-08	IC NJM2068V-TE2
IC9409	8-759-830-08	IC NJM2068V-TE2
IC9410	8-759-830-08	IC NJM2068V-TE2
IC9411	8-759-830-08	IC NJM2068V-TE2
IC9413	8-759-278-58	IC NJM4558V-TE2
IC9414	8-759-278-58	IC NJM4558V-TE2
IC9415	8-759-278-58	IC NJM4558V-TE2
IC9416	8-759-278-58	IC NJM4558V-TE2
IC9420	8-759-830-08	IC NJM2068V-TE2

AD

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC9421	8-759-662-86	IC NJM2391DL1-3379M05DL1A(TE2)	
IC9422	8-759-641-26	IC NJM2391DL1-33(TE1)	
		<COIL>	
L9401	1-469-555-21	INDUCTOR 10UH	
		<TRANSISTOR>	
Q9400	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q9401	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q9402	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q9403	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9405	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9406	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9407	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9408	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9411	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9412	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9413	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9414	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9415	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q9416	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q9417	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
		<RESISTOR>	
R9400	1-218-887-11	METAL CHIP 47K 5%	1/10W
R9401	1-216-809-11	METAL CHIP 100 5%	1/10W
R9402	1-216-833-11	METAL CHIP 10K %	1/10W
R9404	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9405	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9406	1-216-837-11	METAL CHIP 22K 5%	1/10W
R9407	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9408	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9410	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9411	1-216-809-11	METAL CHIP 100 5%	1/10W
R9412	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R9413	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9414	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R9415	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9416	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9417	1-216-809-11	METAL CHIP 100 5%	1/10W
R9418	1-216-809-11	METAL CHIP 100 5%	1/10W
R9419	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9420	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9421	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9422	1-218-841-11	METAL CHIP 560 5%	1/10W
R9423	1-216-809-11	METAL CHIP 100 5%	1/10W
R9424	1-216-809-11	METAL CHIP 100 5%	1/10W
R9425	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9426	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9428	1-216-809-11	METAL CHIP 100 5%	1/10W
R9429	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9430	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9431	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9432	1-218-835-11	METAL CHIP 330 5%	1/10W
R9433	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9434	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9435	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R9436	1-216-809-11	METAL CHIP 100 5%	1/10W
R9437	1-216-809-11	METAL CHIP 100 5%	1/10W
R9438	1-218-835-11	METAL CHIP 330 5%	1/10W
R9439	1-218-835-11	METAL CHIP 330 5%	1/10W
R9440	1-218-839-11	METAL CHIP 470 5%	1/10W
R9441	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R9442	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9443	1-218-692-11	METAL CHIP 1K 0.5%	1/10W
R9444	1-216-837-11	METAL CHIP 22K 5%	1/10W
R9446	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9447	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9448	1-218-841-11	METAL CHIP 560 5%	1/10W
R9449	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R9450	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R9451	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9452	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9453	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9454	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9455	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9456	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9457	1-216-833-11	METAL CHIP 10K 5%	1/10W
R9458	1-216-833-11	METAL CHIP 33K 5%	1/10W
R9459	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9460	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9461	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9462	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9463	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9464	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9465	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9466	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9467	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9468	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9469	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9470	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9471	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9472	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9473	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9474	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9475	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9476	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9477	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9478	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9479	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9480	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9481	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9482	1-218-700-11	METAL CHIP 2.2K 0.5%	1/10W
R9483	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9484	1-218-724-11	METAL CHIP 22K 0.5%	1/10W
R9485	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9486	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9487	1-218-726-11	METAL CHIP 27K 0.5%	1/10W
R9488	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9489	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9490	1-218-716-11	METAL CHIP 10K 0.5%	1/10W
R9494	1-216-855-11	METAL CHIP 680K 5%	1/10W
R9495	1-218-911-11	METAL CHIP 470K 5%	1/10W
R9496	1-218-911-11	METAL CHIP 470K 5%	1/10W
R9497	1-216-855-11	METAL CHIP 680K 5%	1/10W
R9502	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R9503	1-216-845-11	METAL CHIP 100K 5%	1/10W
R9504	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R9505	1-216-843-11	METAL CHIP 68K 5%	1/10W
R9509	1-216-843-11	METAL CHIP 68K 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R9510	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R9511	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R9512	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R9515	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9516	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9520	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9524	1-215-866-11	METAL OXIDE 330 5% 1W	
R9527	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9539	1-218-706-11	METAL CHIP 3.9K 0.5% 1/10W	
R9540	1-218-702-11	METAL CHIP 2.7K 0.5% 1/10W	
R9541	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R9542	1-218-714-11	METAL CHIP 8.2K 0.5% 1/10W	
R9545	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R9546	1-218-720-11	METAL CHIP 15K 0.5% 1/10W	
R9548	1-218-740-11	METAL CHIP 100K 0.5% 1/10W	
R9549	1-218-722-11	METAL CHIP 18K 0.5% 1/10W	
R9550	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R9551	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9553	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9554	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9555	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9556	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9557	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9558	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9559	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9565	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9566	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9567	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9568	1-216-864-11	SHORT CHIP 0	
R9569	1-216-864-11	SHORT CHIP 0	
R9570	1-216-864-11	SHORT CHIP 0	
R9571	1-216-864-11	SHORT CHIP 0	
R9572	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9573	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9574	1-216-797-11	METAL CHIP 10 5% 1/10W	
R9575	1-216-797-11	METAL CHIP 10 5% 1/10W	

<NETWORK>

RB9400	1-233-576-11	RES, CHIP NETWORK 100
RB9401	1-233-576-11	RES, CHIP NETWORK 100
RB9402	1-233-576-11	RES, CHIP NETWORK 100

<VARISTOR>

VD9404	1-804-499-21	VARISTOR, CHIP
VD9405	1-804-499-21	VARISTOR, CHIP
VD9406	1-804-499-21	VARISTOR, CHIP
VD9407	1-804-499-21	VARISTOR, CHIP

<CRYSTAL>

X9401	1-767-922-11	VIBRATOR, CERAMIC (16MHz)

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*A-1300-890-A D BOARD, COMPLETE
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	4-382-854-11	SCREW (M3X10), P, SW (+)
	7-447-019-03	MATERIAL, COATING CT-301S(1KG)
	7-682-952-09	SCREW +PSW 3X16

REF.NO.	PART NO.	DESCRIPTION	REMARK

<CAPACITOR>

C8001	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C8002	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8003	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8004	1-104-666-11	ELECT	220UF	20.00%	25V
C8005	1-126-942-61	ELECT	1000UF	20.00%	25V
C8006	1-126-942-61	ELECT	1000UF	20.00%	25V
C8007	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8008	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8009	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8010	1-136-177-00	FILM	1UF	5.00%	50V
C8011	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8012	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8013	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8014	1-104-665-11	ELECT	100UF	20.00%	25V
C8015	1-126-969-11	ELECT	220UF	20.00%	50V
C8016	1-104-665-11	ELECT	100UF	20.00%	25V
C8017	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C8018	1-126-964-11	ELECT	10UF	20.00%	50V
C8019	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8020	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8023	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C8024	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C8025	1-126-968-11	ELECT	100UF	20.00%	50V
C8026	1-126-968-11	ELECT	100UF	20.00%	50V
C8028	1-126-968-11	ELECT	100UF	20.00%	50V
C8029	1-126-968-11	ELECT	100UF	20.00%	50V
C8031	1-107-636-11	ELECT	10UF	20.00%	160V
C8032	1-126-968-11	ELECT	100UF	20.00%	50V
C8033	1-126-968-11	ELECT	100UF	20.00%	50V
C8034	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8035	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8036	1-126-968-11	ELECT	100UF	20.00%	50V
C8037	1-126-968-11	ELECT	100UF	20.00%	50V
C8040	1-115-349-51	CERAMIC	0.01UF		2KV
C8041	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8042	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8045	1-126-965-91	ELECT	22UF	20.00%	50V
C8046	1-126-965-91	ELECT	22UF	20.00%	50V
C8047	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8048	1-126-965-91	ELECT	22UF	20.00%	50V
C8049	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8050	1-126-965-91	ELECT	22UF	20.00%	50V
C8051	1-102-038-00	CERAMIC	0.001UF		500V
C8052	1-126-965-91	ELECT	22UF	20.00%	50V
C8053	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8054	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8055	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8056	1-107-652-11	ELECT	10UF	20.00%	250V
C8057	1-126-959-11	ELECT	0.47UF	20.00%	50V
C8058	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C8059	1-127-715-91	CERAMIC CHIP	0.22UF	0%	16V
C8060	1-104-665-11	ELECT	100UF	20.00%	25V
C8061	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8062	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8063	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8064	1-107-636-11	ELECT	10UF	20.00%	160V
C8065	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C8066	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8067	1-104-665-11	ELECT	100UF	20.00%	25V
C8068	1-162-318-11	CERAMIC	0.001UF	10.00%	500V

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8069	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8070	1-126-964-11	ELECT	10UF	20.00%	50V
C8071	1-126-964-11	ELECT	10UF	20.00%	50V
C8072	1-126-964-11	ELECT	10UF	20.00%	50V
C8073	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8074	1-104-665-11	ELECT	100UF	20.00%	25V
C8075	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8076	1-128-551-11	ELECT	22UF	20.00%	25V
C8077	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8078	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C8079	1-126-964-11	ELECT	10UF	20.00%	50V
C8080	1-126-964-11	ELECT	10UF	20.00%	50V
C8081	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C8082	1-165-176-11	CERAMIC CHIP	0.047UF	10.00%	16V
C8083	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C8084	1-130-992-11	FILM	0.022UF	5.00%	50V
C8085	1-162-924-11	CERAMIC CHIP	56PF	5.00%	50V
C8086	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8087	1-126-960-11	ELECT	1UF	20.00%	50V
C8088	1-126-964-11	ELECT	10UF	20.00%	50V
C8089	1-162-134-11	CERAMIC	470PF	10.00%	2KV
C8090	1-126-960-11	ELECT	1UF	20.00%	50V
C8091	1-104-665-11	ELECT	100UF	20.00%	25V
C8092	1-117-640-11	FILM	6800PF	3.00%	1.2KV
C8093	1-107-648-91	ELECT	100UF	20.00%	160V
C8094	1-126-947-11	ELECT	47UF	20.00%	25V
C8095	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8096	1-136-684-51	MYLAR	0.0022UF	10.00%	100V
C8097	1-162-131-11	CERAMIC	220PF	10.00%	2KV
C8098	1-162-131-11	CERAMIC	220PF	10.00%	2KV
C8099	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C8100	1-104-665-11	ELECT	100UF	20.00%	25V
C8102	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C8103	1-126-964-11	ELECT	10UF	20.00%	50V
C8104	1-162-965-11	CERAMIC CHIP	0.0015UF	10.00%	50V
C8105	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8106	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8107	1-136-187-11	MYLAR	0.047UF	10.00%	250V
C8108	1-126-964-11	ELECT	10UF	20.00%	50V
C8109	1-162-924-11	CERAMIC CHIP	56PF	5.00%	50V
C8110	1-126-960-11	ELECT	1UF	20.00%	50V
C8111	1-126-960-11	ELECT	1UF	20.00%	50V
C8113	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C8114	1-125-473-11	ELECT(BLOCK)	1000UF	20.00%	160V
C8115	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8116	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8117	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C8118	1-136-189-00	MYLAR	0.1UF	10.00%	250V
C8120	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8121	1-115-349-51	CERAMIC	0.01UF		2KV
C8122	1-126-934-11	ELECT	220UF	20.00%	16V
C8123	1-107-444-11	CERAMIC	100PF	10.00%	2KV
C8124 ⚠	1-117-642-11	FILM	8200PF	3.00%	1.2KV
C8125	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8126	1-106-357-00	MYLAR	0.0039UF	99%	200V
C8127	1-126-942-61	ELECT	1000UF	20.00%	25V
C8129	1-137-150-11	MYLAR	0.01UF	5.00%	50V
C8131	1-128-582-11	ELECT	10UF	20.00%	100V
C8132	1-126-927-11	ELECT	2200UF	20.00%	10V
C8133	1-107-649-11	ELECT	2.2UF	20.00%	250V
C8135	1-117-813-11	FILM	0.75UF	5.00%	250V
C8136	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C8137	1-126-927-11	ELECT	2200UF	20.00%	10V
C8138	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C8139	1-126-964-11	ELECT	10UF	20.00%	50V
C8140	1-102-030-00	CERAMIC	330PF	10.00%	500V
C8141	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8142	1-117-664-11	FILM	0.27UF	5.00%	250V
C8143	1-109-889-11	ELECT	1UF	20.00%	50V
C8145	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8146	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8153	1-126-960-11	ELECT	1UF	20.00%	50V
C8154	1-126-947-11	ELECT	47UF	20.00%	16V
C8155	1-126-947-11	ELECT	47UF	20.00%	16V
C8156	1-107-636-11	ELECT	10UF	20.00%	160V
C8158	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8159	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C8160	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C8162	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C8163	1-126-960-11	ELECT	1UF	20.00%	50V
C8165	1-126-965-91	ELECT	22UF	20.00%	50V

<CONNECTOR>

CN8003	* 1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P
CN8006	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8007	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8008	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8009	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8010	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8011	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8012	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8013	1-779-092-11	PIN, CONNECTOR (PC BOARD) 10P
CN8015	* 1-506-371-00	PIN, CONNECTOR 2P
CN8016	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8018	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8019	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8020	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8022	* 1-564-510-11	PLUG, CONNECTOR 7P
CN8023	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8025	* 1-764-333-11	PLUG, CONNECTOR 10P
CN8026	1-764-611-11	CONNECTOR, BOARD TO BOARD 20P
CN8027	1-764-611-11	CONNECTOR, BOARD TO BOARD 20P
CN8028	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8029	* 1-564-510-11	PLUG, CONNECTOR 7P
CN8030	* 1-564-510-11	PLUG, CONNECTOR 7P
CN8031	* 1-764-333-11	PLUG, CONNECTOR 10P

<DIODE>

D8001	8-719-109-89	DIODE MTZJ-T-77-5.6B
D8002	8-719-110-53	DIODE MTZJ-T-77-20B
D8003	8-719-924-13	DIODE MTZJ-T-77-22B
D8004	8-719-908-03	DIODE GP08DPKG23
D8005	8-719-988-61	DIODE 1SS355TE-17
D8006	8-719-988-61	DIODE 1SS355TE-17
D8008	8-719-988-61	DIODE 1SS355TE-17
D8010	8-719-988-61	DIODE 1SS355TE-17
D8011	8-719-988-61	DIODE 1SS355TE-17
D8012	8-719-988-61	DIODE 1SS355TE-17
D8013	8-719-109-85	DIODE MTZJ-T-77-5.1B
D8014	8-719-109-85	DIODE MTZJ-T-77-5.1B
D8015	8-719-988-61	DIODE 1SS355TE-17

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D8016	8-719-988-61	DIODE 1SS355TE-17	
D8019	8-719-988-61	DIODE 1SS355TE-17	
D8020	8-719-988-61	DIODE 1SS355TE-17	
D8022	8-719-988-61	DIODE 1SS355TE-17	
D8023	8-719-988-61	DIODE 1SS355TE-17	
D8024	8-719-110-41	DIODE MTZJ-T-77-15B	
D8025	8-719-988-61	DIODE 1SS355TE-17	
D8026	8-719-109-89	DIODE MTZJ-T-77-5.6B	
D8027	8-719-028-45	DIODE D2L20U-TA	
D8028	8-719-110-41	DIODE MTZJ-T-77-15B	
D8029	8-719-027-43	DIODE S2L20UF	
D8030	8-719-027-43	DIODE S2L20UF	
D8032	8-719-302-43	DIODE RGP10GPKG23	
D8033	8-719-028-72	DIODE RGP02-17EL-6433	
D8036	8-719-110-41	DIODE MTZJ-T-77-15B	
D8037	8-719-028-45	DIODE D2L20U-F	
D8038	8-719-302-43	DIODE RGP10GPKG23	
D8039	8-719-028-72	DIODE RGP02-17PKG23	
D8042	8-719-988-61	DIODE 1SS355TE-17	
D8043	8-719-988-61	DIODE 1SS355TE-17	
D8045	8-719-908-03	DIODE GP08DPKG23	
D8047	8-719-988-61	DIODE 1SS355TE-17	
D8050	8-719-988-61	DIODE 1SS355TE-17	
D8051	8-719-988-61	DIODE 1SS355TE-17	
D8052	8-719-988-61	DIODE 1SS355TE-17	

<FERRITE BEAD>

FB8001	1-410-397-21	FERRITE	1.1UH
FB8002	1-410-397-21	FERRITE	1.1UH
FB8005	1-469-869-21	FERRITE	0UH
FB8006	1-469-869-21	FERRITE	0UH
FB8014	1-469-869-21	FERRITE	0UH
FB8015	1-469-869-21	FERRITE	0UH
FB8016	1-469-869-21	FERRITE	0UH
FB8017	1-469-869-21	FERRITE	0UH
FB8018	1-469-869-21	FERRITE	0UH
FB8021	1-410-397-21	FERRITE	1.1UH
FB8022	1-410-396-41	FERRITE	0.45UH
FB8023	1-410-396-41	FERRITE	0.45UH

<IC>

IC8001	8-749-019-08	IC STK392-560
IC8002	8-749-019-08	IC STK392-560
IC8003	8-759-593-33	IC LA78045
IC8004	8-759-701-79	IC NJM7812FA
IC8005	8-759-585-82	IC BA9759F-E2
IC8006	8-759-700-07	IC NJM2903M-TE2
IC8007	8-759-700-07	IC NJM2903M-TE2
IC8008	8-759-585-82	IC BA9759F-E2
IC8009	8-759-803-42	IC LA6500-FA
IC8012	8-759-701-01	IC NJM2904M(TE2)

<COIL>

L8001	1-412-533-21	INDUCTOR	47UH
L8002	1-412-533-21	INDUCTOR	47UH
L8003	1-412-525-31	INDUCTOR	10UH
L8004	1-412-533-21	INDUCTOR	47UH
L8005	1-412-533-21	INDUCTOR	47UH
L8006	1-412-525-31	INDUCTOR	10UH
L8007	1-412-533-21	INDUCTOR	47UH
L8008	1-412-533-21	INDUCTOR	47UH
L8009	1-412-525-31	INDUCTOR	10UH
L8010	1-414-187-11	INDUCTOR	47UH
L8011	1-414-856-11	INDUCTOR	10UH
L8012	1-414-187-11	INDUCTOR	47UH
L8013	1-414-856-11	INDUCTOR	10UH
L8014	1-414-189-31	INDUCTOR	100UH
L8015	1-414-189-31	INDUCTOR	100UH
L8016	1-412-537-31	INDUCTOR	100UH
L8017	1-414-856-11	INDUCTOR	10UH
L8018	1-406-667-11	INDUCTOR	220UH
L8019	1-456-109-11	COIL,HORIZONTAL LINEARITY(HLC)	
L8020	1-412-525-31	INDUCTOR	10UH
L8021	1-406-659-11	INDUCTOR	10UH
L8022	1-412-552-11	INDUCTOR	2.2MH
L8025	1-414-856-11	INDUCTOR	10UH
L8026	1-414-856-11	INDUCTOR	10UH
L8028	1-414-187-11	INDUCTOR	47UH
L8029	1-414-187-11	INDUCTOR	47UH
L8030	1-414-187-11	INDUCTOR	47UH
L8031	1-414-187-11	INDUCTOR	47UH
L8032	1-414-856-11	INDUCTOR	10UH
L8033	1-414-856-11	INDUCTOR	10UH

<NEON LAMP>

NL8001	1-517-778-21	LAMP, NEON

<IC LINK>

PS8001	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8002	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8003	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8004	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8005	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8006	⚠1-533-595-31	LINK, IC 3.15A/90V
PS8007	⚠1-533-594-31	LINK, IC 2.5A/90V
PS8008	⚠1-532-685-00	LINK, IC 0.8A/90V

<TRANSISTOR>

Q8001	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8002	8-729-046-80	TRANSISTOR 2SC4634LS-CB11
Q8003	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR
Q8004	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR
Q8007	8-729-046-80	TRANSISTOR 2SC4634LS-CB11
Q8008	8-729-207-89	TRANSISTOR 2SA1358-Y
Q8009	8-729-207-82	TRANSISTOR 2SC3421-Y
Q8010	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8011	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR
Q8014	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8015	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8016	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8019	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR
Q8020	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8021	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8022	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR
Q8023	8-729-048-47	TRANSISTOR 2SC2688(5)-LK
Q8024	6-550-144-01	TRANSISTOR 2SC5778-YB
Q8027	6-550-153-01	TRANSISTOR FQPF12P20XDTU

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q8028	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q8029	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q8030	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q8031	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q8035	6-550-153-01	TRANSISTOR FQPF12P20XDTU	
Q8039	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8041	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q8042	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8043	6-550-144-01	TRANSISTOR 2SC5778-YB	
Q8044	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q8101	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	

<RESISTOR>

R8001	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8002	1-216-809-11	METAL CHIP	100	5%	1/10W
R8003	1-216-809-11	METAL CHIP	100	5%	1/10W
R8004	1-216-809-11	METAL CHIP	100	5%	1/10W
R8005	1-215-875-11	METAL OXIDE	10K	5%	1W
R8007	1-216-809-11	METAL CHIP	100	5%	1/10W
R8008	1-216-809-11	METAL CHIP	100	5%	1/10W
R8009	1-216-809-11	METAL CHIP	100	5%	1/10W
R8010	1-260-131-11	CARBON	470K	5%	1/2W
R8011	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8012	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8013	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R8014	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R8015	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8016	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8017	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8018	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8019	1-218-712-11	METAL CHIP	6.8K	0.5%	1/10W
R8020	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8021	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8022	1-216-839-11	METAL CHIP	33K	5%	1/10W
R8023	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8024	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8025	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8026	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8029	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8030	1-215-903-11	METAL OXIDE	68K	5%	2W
R8031	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8032	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8033	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8034	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8035	1-218-692-11	METAL CHIP	1K	0.5%	1/10W
R8036	1-214-800-11	METAL	2.2	1%	1/2W
R8037	1-215-903-11	METAL OXIDE	68K	5%	2W
R8038	1-216-809-11	METAL CHIP	100	5%	1/10W
R8039	1-214-800-11	METAL	2.2	1%	1/2W
R8040	1-215-913-11	METAL OXIDE	220	5%	3W
R8041	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R8042	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R8043	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R8044	1-218-712-11	METAL CHIP	6.8K	0.5%	1/10W
R8045	1-214-808-11	METAL	4.7	1%	1/2W
R8046	1-214-808-11	METAL	4.7	1%	1/2W
R8047	1-215-857-11	METAL OXIDE	10	5%	1W
R8048	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8050	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8051	1-214-808-11	METAL	4.7	1%	1/2W
R8053	1-214-808-11	METAL	4.7	1%	1/2W
R8055	1-218-748-11	METAL CHIP	220K	0.5%	1/10W
R8056	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8057	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8058	1-216-809-11	METAL CHIP	100	5%	1/10W
R8059	1-214-808-11	METAL	4.7	1%	1/2W
R8060	1-214-808-11	METAL	4.7	1%	1/2W
R8061	1-216-391-11	METAL OXIDE	1.5	5%	3W
R8062	1-260-107-11	CARBON	4.7K	5%	1/2W
R8063	1-214-808-11	METAL	4.7	1%	1/2W
R8064	1-214-808-11	METAL	4.7	1%	1/2W
R8065	1-260-328-11	CARBON	1K	5%	1/2W
R8066	1-214-808-11	METAL	4.7	1%	1/2W
R8067	1-214-808-11	METAL	4.7	1%	1/2W
R8068	1-216-809-11	METAL CHIP	100	5%	1/10W
R8069	1-214-808-11	METAL	4.7	1%	1/2W
R8070	1-214-808-11	METAL	4.7	1%	1/2W
R8071	1-215-381-00	METAL	22	1%	1/4W
R8073	1-214-808-11	METAL	4.7	1%	1/2W
R8075	1-214-808-11	METAL	4.7	1%	1/2W
R8076	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8077	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R8078	1-214-808-11	METAL	4.7	1%	1/2W
R8079	1-214-808-11	METAL	4.7	1%	1/2W
R8080	1-216-353-00	METAL OXIDE	2.2	5%	1W
R8081	1-214-808-11	METAL	4.7	1%	1/2W
R8082	1-214-808-11	METAL	4.7	1%	1/2W
R8083	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8084	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8085	1-214-808-11	METAL	4.7	1%	1/2W
R8086	1-214-808-11	METAL	4.7	1%	1/2W
R8087	1-249-385-11	CARBON	2.2	5%	1/4W
R8088	1-249-385-11	CARBON	2.2	5%	1/4W
R8089	1-214-808-11	METAL	4.7	1%	1/2W
R8090	1-214-808-11	METAL	4.7	1%	1/2W
R8091	1-214-808-11	METAL	4.7	1%	1/2W
R8092	1-214-808-11	METAL	4.7	1%	1/2W
R8093	1-214-808-11	METAL	4.7	1%	1/2W
R8094	1-214-808-11	METAL	4.7	1%	1/2W
R8095	1-216-801-11	METAL CHIP	22	5%	1/10W
R8096	1-216-801-11	METAL CHIP	22	5%	1/10W
R8097	1-214-808-11	METAL	4.7	1%	1/2W
R8098	1-214-808-11	METAL	4.7	1%	1/2W
R8100	1-216-475-11	METAL OXIDE	120	5%	3W
R8101	1-216-475-11	METAL OXIDE	120	5%	3W
R8102	1-218-734-11	METAL CHIP	56K	0.5%	1/10W
R8103	1-218-837-11	METAL CHIP	390	5%	1/10W
R8104	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R8105	1-214-808-11	METAL	4.7	1%	1/2W
R8106	1-214-808-11	METAL	4.7	1%	1/2W
R8109	1-218-831-11	METAL CHIP	220	5%	1/10W
R8110	1-249-424-11	CARBON	3.9K	5%	1/4W
R8111	1-218-843-11	METAL CHIP	680	5%	1/10W
R8112	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R8113	1-216-475-11	METAL OXIDE	120	5%	3W
R8114	1-216-475-11	METAL OXIDE	120	5%	3W
R8115	1-216-475-11	METAL OXIDE	120	5%	3W
R8116	1-216-475-11	METAL OXIDE	120	5%	3W
R8117	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8119	1-216-833-11	METAL CHIP	10K	5%	1/10W

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8121	1-216-809-11	METAL CHIP	100	5%	1/10W
R8122	1-215-913-11	METAL OXIDE	220	5%	3W
R8123	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8124	1-249-377-11	CARBON	0.47	5%	1/4W
R8125	1-218-837-11	METAL CHIP	390	5%	1/10W
R8126	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R8127	1-216-341-11	METAL OXIDE	0.22	5%	1W
R8128	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8129	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8130	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8131	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8133	1-216-487-11	METAL OXIDE	12K	5%	3W
R8134	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R8135	1-215-924-00	METAL OXIDE	15K	5%	3W
R8136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8137	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R8138	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8139	1-216-827-11	RMETAL CHIP	3.3K	5%	1/10W
R8140	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8141	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R8142	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8143	1-218-734-11	METAL CHIP	56K	0.5%	1/10W
R8144	1-216-809-11	METAL CHIP	100	5%	1/10W
R8145	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R8146	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R8147	1-218-710-11	METAL CHIP	5.6K	0.5%	1/10W
R8148	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R8149	1-249-401-11	CARBON	47	5%	1/4W
R8150	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R8151	1-218-692-11	METAL CHIP	1K	0.5%	1/10W
R8152	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R8153	1-218-692-11	METAL CHIP	1K	0.5%	1/10W
R8154	1-218-728-11	METAL CHIP	33K	0.5%	1/10W
R8155	1-215-469-00	METAL	100K	1%	1/4W
R8156	1-215-469-00	METAL	100K	1%	1/4W
R8157	1-218-738-11	METAL CHIP	82K	0.5%	1/10W
R8159	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8161	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8162	1-249-377-11	CARBON	0.47	5%	1/4W
R8163	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8164	1-218-734-11	METAL CHIP	56K	0.5%	1/10W
R8165	1-249-425-11	CARBON	4.7K	5%	1/4W
R8166	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R8168	1-216-809-11	METAL CHIP	100	5%	1/10W
R8169	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8170	1-218-712-11	METAL CHIP	6.8K	0.5%	1/10W
R8171	1-216-809-11	METAL CHIP	100	5%	1/10W
R8172	1-249-405-11	CARBON	100	5%	1/4W
R8173	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8174	1-249-425-11	CARBON	4.7K	5%	1/4W
R8176	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R8178	1-218-887-11	METAL CHIP	47K	5%	1/10W
R8180	1-218-887-11	METAL CHIP	47K	5%	1/10W
R8181	1-218-887-11	METAL CHIP	47K	5%	1/10W
R8182	1-218-748-11	METAL CHIP	220K	0.5%	1/10W
R8183	1-218-748-11	METAL CHIP	220K	0.5%	1/10W
R8189	1-249-377-11	CARBON	0.47	5%	1/4W
R8190	1-215-431-00	METAL	2.7K	1%	1/4W
R8191	1-215-429-00	METAL	2.2K	1%	1/4W
R8192	1-215-449-00	METAL	15K	1%	1/4W
R8193	1-215-449-00	METAL	15K	1%	1/4W
R8194	1-215-445-00	METAL	10K	1%	1/4W
R8195	1-215-445-00	METAL	10K	1%	1/4W
R8196	1-249-425-11	CARBON	4.7K	5%	1/4W
R8198	1-215-445-00	METAL	10K	1%	1/4W
R8201	1-249-397-11	CARBON	22	5%	1/4W
R8202	1-260-092-11	CARBON	270	5%	1/2W
R8205	1-249-377-11	CARBON	0.47	5%	1/4W
R8206	1-249-377-11	CARBON	0.47	5%	1/4W
R8208	1-260-288-11	CARBON	0.47	5%	1/2W
R8209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8210	1-216-809-11	METAL CHIP	100	5%	1/10W
R8211	1-215-906-11	METAL OXIDE	15	5%	3W
R8212	1-215-907-11	METAL OXIDE	22	5%	3W
R8213	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8216	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8217	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8218	1-260-123-11	CARBON	100K	5%	1/2W
R8219	1-249-377-11	CARBON	0.47	5%	1/4W
R8220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8222	1-216-341-11	METAL OXIDE	0.22	5%	1W
R8223	1-218-752-11	METAL CHIP	330K	0.5%	1/10W
R8224	1-260-127-11	CARBON	220K	5%	1/2W
R8225	1-260-292-11	CARBON	1	5%	1/2W
R8228	1-260-314-11	CARBON	68	5%	1/2W
R8230	1-218-751-11	METAL CHIP	300K	0.5%	1/10W
R8232	1-216-809-11	METAL CHIP	100	5%	1/10W
R8233	1-216-809-11	METAL CHIP	100	5%	1/10W
R8234	1-216-809-11	METAL CHIP	100	5%	1/10W
R8235	1-216-809-11	METAL CHIP	100	5%	1/10W
R8236	1-216-855-11	METAL CHIP	680K	5%	1/10W
R8237	1-216-855-11	METAL CHIP	680K	5%	1/10W
R8242	1-216-864-11	SHORT CHIP	0		
R8243	1-216-809-11	METAL CHIP	100	5%	1/10W
R8249	1-215-923-00	METAL OXIDE	10K	5%	3W
R8250	1-215-923-00	METAL OXIDE	10K	5%	3W
R8251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8253	1-218-837-11	METAL CHIP	390	5%	1/10W
R8254	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R8255	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R8256	1-249-401-11	CARBON	47	5%	1/4W
R8258	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8259	1-216-809-11	METAL SHIP	100	5%	1/10W
R8260	1-216-845-11	METAL SHIP	100K	5%	1/10W
R8261	1-216-845-11	METAL SHIP	100K	5%	1/10W
R8262	1-216-845-11	METAL SHIP	100K	5%	1/10W
R8263	1-216-845-11	METAL SHIP	100K	5%	1/10W

<TRANSFORMER>

T8001	1-437-708-11	TRANSFORMER, FERRITE (DFT)	
T8002	1-437-739-11	TRANSFORMER, FERRITE (HDT)	
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)	
T8004 ⚠	1-437-399-21	TRANSFORMER, FERRITE (LOT)	
T8005 ⚠	1-453-285-41	FBT ASSY, NX-4006//M3P4	
T8006	1-437-739-11	TRANSFORMER, FERRITE (HDT)	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<THERMISTOR>			
TH8001	1-800-193-00	THERMISTOR			
		<VARIABLE RESISTER>			
◙ VR8001	⚠1-225-627-91	RES, VAR, ADJ, CERMET 2K (HV ADJ)			
◙ VR8002	⚠1-225-630-91	RES, VAR, ADJ, CERMET 20K (HV PROT)			
**********					
	*A-1300-994-A	G BOARD, COMPLETE			
		**********			
	4-044-778-11	COVER, CAP TYPE CONDENSER			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	*7-651-000-50	GREASE,SILICON (G-746) 200G			
		<CAPACITOR>			
C6502	1-126-933-11	ELECT	100UF	20.00%	16V
C6507	1-126-936-11	ELECT	3300UF	20.00%	16V
C6509	1-126-934-11	ELECT	220UF	20.00%	16V
C6514	1-126-937-11	ELECT	4700UF	20.00%	16V
C6516	1-126-933-11	ELECT	100UF	20.00%	16V
C6523	1-126-934-11	ELECT	220UF	20.00%	16V
C6525	1-104-665-11	ELECT	100UF	20.00%	25V
C6526	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6531	1-126-952-11	ELECT	1000UF	20.00%	35V
C6532	1-126-951-11	ELECT	470UF	20.00%	35V
C6533	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6534	1-104-665-11	ELECT	100UF	20.00%	25V
C6535	1-126-952-11	ELECT	1000UF	20.00%	35V
C6536	1-126-951-11	ELECT	470UF	20.00%	35V
C6537	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6539	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6541	1-126-952-11	ELECT	1000UF	20.00%	35V
C6542	1-126-948-11	ELECT	100UF	20.00%	35V
C6544	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6546	1-126-952-11	ELECT	1000UF	20.00%	35V
C6547	1-126-948-11	ELECT	100UF	20.00%	35V
C6553	1-137-651-11	ELECT	560UF	20%	160V
C6554	1-137-651-11	ELECT	560UF	20%	160V
C6555	1-126-974-11	ELECT	3300UF	20.00%	50V
C6556	1-126-964-11	ELECT	10UF	20.00%	50V
C6560	1-126-974-11	ELECT	3300UF	20.00%	50V
C6561	1-126-964-11	ELECT	10UF	20.00%	50V
C6563	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6567	1-126-947-11	ELECT	47UF	20.00%	25V
C6568	1-126-947-11	ELECT	47UF	20.00%	25V
C6569	1-104-665-11	ELECT	100UF	20.00%	25V
C6570	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C6573	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6575	1-126-963-11	ELECT	4.7UF	20.00%	50V
C6579	1-126-940-11	ELECT	330UF	20.00%	25V
C6585	1-104-666-11	ELECT	220UF	20.00%	25V
C6586	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C6587	1-128-551-11	ELECT	220UF	20.00%	25V
C6701	1-119-894-51	CERAMIC	2200PF	20.00%	250V
C6702	1-161-964-91	CERAMIC	0.0047UF		250V
C6703	1-161-964-91	CERAMIC	0.0047UF		250V
C6704	1-137-750-11	ELECT	1500UF	20.00%	250V
C6705	1-104-706-11	MYLAR	0.22UF	20.00%	250V
C6706	1-119-894-51	CERAMIC	2200PF	20.00%	250V
C6707	1-161-964-91	CERAMIC	0.0047UF		250V
C6708	1-161-964-91	CERAMIC	0.0047UF		250V
C6710	1-137-750-11	ELECT	1500UF	20.00%	250V
C6711	1-165-950-11	FILM	68000PF	3%	800V
C6712	1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6713	1-104-666-11	ELECT	220UF	20.00%	25V
C6714	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6715	1-136-479-11	FILM	0.001UF	2.00%	50V
C6718	1-136-165-00	FILM	0.1UF	5.00%	50V
C6719	1-126-964-11	ELECT	10UF	20.00%	50V
C6720	1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6721	1-126-963-11	ELECT	4.7UF	20.00%	50V
C6723	1-126-949-11	ELECT	220UF	20.00%	35V
C6724	1-126-967-11	ELECT	47UF	20.00%	50V
C6725	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6726	1-126-947-11	ELECT	47UF	20.00%	25V
C6727	1-126-968-11	ELECT	100UF	20.00%	50V
C6728	1-107-675-11	ELECT	1UF	20.00%	450V
C6729	1-107-427-91	CERAMIC	0.001UF	10.00%	1KV
C6731	1-107-427-91	CERAMIC	0.001UF	10.00%	1KV
C6733	1-107-680-11	ELECT	22UF	20.00%	450V
C6734	1-107-665-11	ELECT	100UF	20.00%	25V
C6735	1-107-662-91	ELECT	22UF	20.00%	25V
C6736 ⚠	1-104-708-11	MYLAR	0.47UF	20.00%	250V
C6737 ⚠	1-109-835-11	MYLAR	0.68UF	20.00%	250V
C6738 ⚠	1-117-703-11	CERAMIC	0.0047UF	99%	250V
		<CONNECTOR>			
CN6502	*1-764-333-11	PLUG, CONNECTOR 10P			
CN6503	1-779-092-11	PIN, CONNECTOR (PC BOARD) 10P			
CN6504	*1-564-509-11	PLUG, CONNECTOR 6P			
CN6701	*1-580-843-11	PIN, CONNECTOR (POWER)			
CN6702	1-695-915-11	TAB (CONTACT)			
CN6703	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN6704	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN6705	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN6799	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D6502	8-719-060-88	DIODE D4SBS6			
D6503	8-719-060-88	DIODE D4SBS6			
D6505	8-719-988-61	DIODE 1SS355TE-17			
D6507	8-719-083-66	DIODE UDZSTE-1718B			
D6513	8-719-063-70	DIODE D1NL20U-TA2			
D6514	8-719-510-02	DIODE D1NS4-TA2			
D6515	8-719-060-88	DIODE D4SBS6			
D6517	8-719-982-26	DIODE MTZJ-T-77-33B			
D6518	8-719-050-18	DIODE D4SBL20U			
D6519	8-719-060-88	DIODE D4SBS6			
D6520	8-719-988-61	DIODE 1SS355TE-17			
D6521	8-719-083-70	DIODE UDZSTE-1727B			
D6522	8-719-083-60	DIODE UDZSTE-174.7B			
D6523	8-719-988-61	DIODE 1SS355TE-17			
D6524	8-719-988-61	DIODE 1SS355TE-17			
D6525	8-719-988-61	DIODE 1SS355TE-17			
D6526	8-719-988-61	DIODE 1SS355TE-17			
D6532	1-216-864-11	SHOT CHIP 0			
D6534	8-719-510-12	DIODE D10SC4M-F			

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D6535	8-719-510-13	DIODE D10SC4MR	
D6536	8-719-988-61	DIODE 1SS355TE-17	
D6538	8-719-988-61	DIODE 1SS355TE-17	
D6540	8-719-988-61	DIODE 1SS355TE-17	
D6596	8-719-988-61	DIODE 1SS355TE-17	
D6599	8-719-056-84	DIODE UDZSTE-177.5B	
D6701	8-719-068-00	DIODE ERC04-06SE	
D6702	8-719-022-99	DIODE D6SB60L	
D6703	8-719-068-00	DIODE ERC04-06SE	
D6704	8-719-988-61	DIODE 1SS355TE-17	
D6705	8-719-988-61	DIODE 1SS355TE-17	
D6706	8-719-948-45	DIODE ERA22-08	
D6712	8-719-083-78	DIODE 10ERA60-TP	
D6715	8-719-063-70	DIODE D1NL20U-TA2	
D6716	8-719-988-61	DIODE 1SS355TE-17	
D6717	8-719-068-00	DIODE ERC04-06SE	
D6718	8-719-077-76	DIODE D2SB60A-F04	
D6719	8-719-063-70	DIODE D1NL20U-TA2	
D6730	8-719-988-61	DIODE 1SS355TE-17	
D6731	8-719-110-57	DIODE RD22E-B	
		<FUSE>	
F6701 ⚠	1-532-325-00	FUSE, TIME-LAG 6.3A/250V	
FH6701	1-533-223-11	CLIP, FUSE (FOR ; F6701)	
FH6702	1-533-223-11	CLIP, FUSE	
		<FERRITE BEAD>	
FB6503	1-410-396-41	FERRITE 0.45UH	
FB6504	1-410-396-41	FERRITE 0.45UH	
FB6505	1-410-396-41	FERRITE 0.45UH	
FB6508	1-410-396-41	FERRITE 0.45UH	
FB6599	1-410-396-41	FERRITE 0.45UH	
FB6703	1-410-396-71	FERRITE 0.45UH	
FB6706	1-410-397-21	FERRITE 1.1UH	
FB6707	1-410-397-21	FERRITE 1.1UH	
FB6708	1-410-397-21	FERRITE 1.1UH	
FB6709	1-410-397-21	FERRITE 1.1UH	
FB6710	1-410-396-41	FERRITE 0.45UH	
		<IC>	
IC6501	8-759-394-35	IC BA12T	
IC6502	8-759-103-93	IC UPC393C	
IC6503 ⚠	8-749-012-13	IC DM-58	
IC6504 ⚠	8-759-198-31	IC UPC1093J-1-T	
IC6701	8-759-670-30	IC MCZ3001D	
IC6702	8-761-541-11	SELECTION UNIT, RECTIFIER	
		<CHIP CONDUCTOR>	
JR6501	1-216-295-91	SHORT CHIP 0	
JR6502	1-216-295-91	SHORT CHIP 0	
JR6503	1-216-295-91	SHORT CHIP 0	
JR6505	1-216-295-91	SHORT CHIP 0	
JR6506	1-216-295-91	SHORT CHIP 0	
JR6509	1-216-295-91	SHORT CHIP 0	
JR6510	1-218-887-11	METAL CHIP 47K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L6503	1-412-528-11	INDUCTOR 18UH	
L6504	1-406-659-11	INDUCTOR 10UH	
L6509	1-412-529-11	INDUCTOR 22UH	
L6510	8-719-510-02	DIODE D1NS4-TA2	
L6511	1-412-529-11	INDUCTOR 22UH	
L6512	1-412-533-21	INDUCTOR 47UH	
L6513	1-412-533-21	INDUCTOR 47UH	
L6514	1-406-665-11	INDUCTOR 100UH	
L6515	1-406-659-11	INDUCTOR 10UH	
L6516	1-406-659-11	INDUCTOR 10UH	
L6519	1-412-519-11	INDUCTOR 3.3UH	
L6520	1-412-519-11	INDUCTOR 3.3UH	
L6521	1-414-189-31	INDUCTOR 100UH	
L6523	1-406-659-11	INDUCTOR 10UH	
L6525	1-406-659-11	INDUCTOR 10UH	
L6702 ⚠	1-433-900-11	TRANSFORMER, LINE FILTER	
L6703 ⚠	1-433-900-11	TRANSFORMER, LINE FILTER	
		<PHOTO COUPLER>	
PH6001 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R	
PH6002 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R	
		<IC LINK>	
PS6501 ⚠	1-533-790-31	LINK, IC 7A/90V	
PS6502 ⚠	1-533-790-31	LINK, IC 7A/90V	
PS6503 ⚠	1-533-597-31	LINK, IC 5A/90V	
PS6504 ⚠	1-533-597-31	LINK, IC 5A/90V	
PS6505 ⚠	1-533-597-31	LINK, IC 5A/90V	
PS6506 ⚠	1-533-597-31	LINK, IC 5A/90V	
PS6508 ⚠	1-533-597-31	LINK, IC 5A/90V	
PS6509 ⚠	1-533-597-31	LINK, IC 5A/90V	
		<TRANSISTOR>	
Q6502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
Q6503	8-729-050-50	TRANSISTOR 2SD1782K-T146-R	
Q6504	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q6507	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q6701	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
Q6702	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
		<RESISTOR>	
R6504	1-249-377-11	CARBON 0.47 5% 1/4W	
R6505	1-215-925-11	METAL OXIDE 22K 5% 3W	
R6506	1-216-361-21	METAL OXIDE 0.22 5% 2W	
R6507	1-249-377-11	CARBON 0.47 5% 1/4W	
R6508	1-216-355-11	METAL OXIDE 3.3 5% 1W	
R6510	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R6511	1-216-824-11	METAL CHIP 1.8K 5% 1/10W	
R6512	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R6513	1-216-864-11	SHORT CHIP 0	
R6514	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R6515	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R6516 ⚠	1-218-740-11	METAL CHIP 100K 0.5% 1/10W	
R6517 ⚠	1-218-708-11	METAL CHIP 4.7K 0.5% 1/10W	
R6518 ⚠	1-249-415-11	CARBON 680 5% 1/4W	
R6519	1-218-708-11	METAL CHIP 4.7K 0.5% 1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R6520	1-218-690-11	METAL CHIP	820	0.5%	1/10W
R6521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6523	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6526	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6527	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6528	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6535 ⚠	1-218-740-11	METAL CHIP	100K	0.5%	1/10W
R6536 ⚠	1-218-736-11	METAL CHIP	68K	0.5%	1/10W
R6537	1-249-431-11	CARBON	15K	5%	1/4W
R6538	1-249-431-11	CARBON	15K	5%	1/4W
R6701	1-220-797-11	CEMENTED	0.47	5%	1/2W
R6702	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R6703	1-260-131-11	CARBON	470K	5%	1/2W
R6705	1-240-251-11	CEMENTED	6.8	5%	10W
R6706	1-220-797-11	CEMENTED	0.47	5%	10W
R6707	1-260-131-11	CARBON	470K	5%	1/2W
R6708	1-220-797-11	CEMENTED	0.47	5%	10W
R6709	1-260-328-11	CARBON	1K	5%	1/2W
R6710	1-215-481-00	METAL	330K	1%	1/4W
R6711	1-215-481-00	METAL	330K	1%	1/4W
R6712	1-249-417-11	CARBON	1K	5%	1/4W
R6713	1-249-393-11	CARBON	10	5%	1/4W
R6714	1-215-481-00	METAL	330K	1%	1/4W
R6715	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6717	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6718	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6719	1-218-708-11	METAL CHIP	4.7K	0.5%	1/10W
R6721	1-218-715-11	METAL CHIP	9.1K	0.5%	1/10W
R6722	1-249-393-11	CARBON	10	5%	1/4W
R6723	1-218-720-11	METAL CHIP	15K	0.5%	1/10W
R6725	1-249-393-11	CARBON	10	5%	1/4W
R6727	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6728	1-243-979-71	METAL OXIDE	0.1	5%	2W
R6729	1-243-979-71	METAL OXIDE	0.1	5%	2W
R6730	1-218-668-11	METAL CHIP	100	0.5%	1/10W
R6731	1-218-675-11	METAL CHIP	200	0.5%	1/10W
R6732	1-218-831-11	METAL CHIP	220	5%	1/10W
R6733	1-218-831-11	METAL CHIP	220	5%	1/10W
R6734	1-249-389-11	CARBON	4.7	5%	1/4W
R6735 ⚠	1-202-719-00	SOLID	1M	20%	1/2W
R6736 ⚠	1-240-303-11	CEMENTED	0.22	5%	10W
R6737	1-240-303-11	CEMENTED	0.22	5%	10W
R6739 ⚠	1-218-265-11	METAL	8.2M	5%	1W
R6740	1-249-405-11	CARBON	100	5%	1/4W
R6741	1-249-389-11	CARBON	4.7	5%	1/4W
R6742	1-260-300-11	CARBON	4.7	5%	1/2W
R6798	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

<RELAY>

RY6701	⚠1-755-395-11	RELAY (AC POWER)	
RY6702	⚠1-755-395-11	RELAY (AC POWER)	
RY6703	⚠1-755-395-11	RELAY (AC POWER)	

<TRANSFORMER>

T6701 ⚠	1-437-455-11	TRANSFORMER (HST)	
T6703 ⚠	1-437-849-11	TRANSFORMER, CONVERTER (PIT)	

REF.NO.	PART NO.	DESCRIPTION			REMARK

<VARISTOR>

VD6701	⚠1-803-614-11	VARISTOR (ERZV471D-20A)	
VD6702	⚠1-803-830-11	VARISTOR (ERZV14D621)	
VD6703	⚠1-803-058-11	VARISTOR (ERZV14D271)	

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*A-1300-504-A B4 BOARD, COMPLETE
****

<CAPACITOR>

C407	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C408	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C501	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C502	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C503	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C505	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C506	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C510	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C512	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C539	1-128-994-21	ELECT CHIP	47UF	20%	10V
C540	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C542	1-128-994-21	ELECT CHIP	47UF	20%	10V
C543	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C545	1-128-994-21	ELECT CHIP	47UF	20%	10V
C546	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C548	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C549	1-128-994-21	ELECT CHIP	47UF	20%	10V
C550	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C551	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C554	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C555	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C556	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C557	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C601	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C602	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C603	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C604	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C605	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C606	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C607	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C608	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C609	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C610	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C611	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C612	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C613	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C614	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C615	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C616	1-128-994-21	ELECT CHIP	47UF	20%	10V
C617	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C618	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C619	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C620	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C621	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C622	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C623	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C624	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C625	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C626	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C627	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C628	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C629	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C630	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C631	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C632	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C633	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C634	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C635	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C636	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C637	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C640	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C701	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C702	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C703	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C704	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C705	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C706	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C707	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C708	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C710	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C711	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C712	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C713	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C714	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C715	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C716	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C717	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C718	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C719	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C720	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C721	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C722	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C723	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C724	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C725	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C726	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C727	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C728	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C729	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C730	1-126-204-11	ELECT CHIP	47UF	20.00%	16V
C733	1-128-994-21	ELECT CHIP	47UF	20%	10V
C734	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C735	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C736	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C737	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C738	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C739	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C801	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C802	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C803	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C804	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C806	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C807	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C808	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C809	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C810	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C811	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C812	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C813	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C814	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C815	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C816	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C817	1-162-916-11	CERAMIC CHIP	12PF	5.00%	50V
C818	1-162-916-11	CERAMIC CHIP	12PF	5.00%	50V
C819	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C820	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C821	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C822	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C823	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C824	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C827	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C829	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C831	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C839	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C840	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C841	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C842	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C843	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C844	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C848	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C849	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C851	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C853	1-162-967-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C854	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C901	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C902	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C903	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C904	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C905	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C906	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C907	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C908	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C909	1-128-994-21	ELECT CHIP	47UF	20%	10V
C910	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C911	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C912	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C913	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C914	1-126-193-11	ELECT CHIP	1UF	20.00%	50V
C915	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C916	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C917	1-128-994-21	ELECT CHIP	47UF	20%	10V
C918	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C950	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C954	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C955	1-162-925-11	CERAMIC CHIP	68PF	5.00%	50V
C956	1-162-925-11	CERAMIC CHIP	68PF	5.00%	50V
C8020	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C8601	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8602	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C8603	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8604	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C8605	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8606	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C8607	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8608	1-128-934-91	CERAMIC CHIP	0.33UF	20%	10V
C8609	1-162-967-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C8610	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8611	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C8612	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8613	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8615	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8617	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8621	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8622	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8623	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8624	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8625	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8630	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8631	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8632	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8633	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8634	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C8635	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C8636	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8637	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C8638	1-165-908-91	CERAMIC CHIP	1UF	10%	10V
C8639	1-128-994-21	ELECT CHIP	47UF	20%	10V
C8640	1-115-156-11	CERAMIC CHIP	1UF		10V
C8641	1-115-156-11	CERAMIC CHIP	1UF		10V
C8642	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8643	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8644	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8645	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8646	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8647	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8648	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8649	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8650	1-126-204-11	ELECT CHIP	47UF	20.00%	16V
C8651	1-128-994-21	ELECT CHIP	47UF	20.00%	10V
C8652	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8655	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8656	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8657	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V

<CONNECTOR>

CN502	* 1-785-303-11	CONNECTOR, DIN (PLUG) 64P	

<DIODE>

D604	8-719-046-91	DIODE MA2S111-TX	
D701	8-719-046-91	DIODE MA2S111-TX	
D702	8-719-046-91	DIODE MA2S111-TX	
D801	8-719-046-91	DIODE MA2S111-TX	
D802	8-719-801-78	DIODE 1SS301-TE85L	
D803	8-719-024-81	DIODE 1SS300-TE85L	
D901	8-719-024-81	DIODE 1SS300-TE85L	
D902	8-719-801-78	DIODE 1SS301-TE85L	
D903	8-719-046-91	DIODE MA2S111-TX	

<FERRITE BEAD>

FB501	1-414-760-21	FERRITE	0UH
FB502	1-414-760-21	FERRITE	0UH
FB503	1-414-760-21	FERRITE	0UH
FB504	1-414-760-21	FERRITE	0UH
FB507	1-414-760-21	FERRITE	0UH
FB701	1-216-864-11	SHORT CHIP	0
FB801	1-414-554-21	FERRITE	0UH
FB802	1-414-554-21	FERRITE	0UH
FB803	1-414-760-21	FERRITE	0UH
FB901	1-216-864-11	SHORT CHIP	0
FB902	1-216-864-11	SHORT CHIP	0
FB8601	1-414-554-21	FERRITE	0UH
FB8602	1-414-554-21	FERRITE	0UH

<FILTER>

FL501	1-233-877-11	FILTER, LOW PASS	
FL502	1-234-344-21	FILTER, LOW PASS	
FL503	1-234-344-21	FILTER, LOW PASS	
FL504	1-234-177-21	FERRITE	0UH
FL505	1-234-177-21	FERRITE	0UH
FL506	1-234-177-21	FERRITE	0UH
FL508	1-234-177-21	FERRITE	0UH
FL601	1-234-177-21	FERRITE	0UH
FL602	1-234-177-21	FERRITE	0UH
FL603	1-234-177-21	FERRITE	0UH
FL606	1-239-560-11	FILTER, CHIP EMI	
FL702	1-234-177-21	FERRITE	0UH
FL703	1-234-177-21	FERRITE	0UH
FL801	1-234-177-21	FERRITE	0UH
FL802	1-234-177-21	FERRITE	0UH
FL803	1-234-177-21	FERRITE	0UH
FL804	1-234-177-21	FERRITE	0UH
FL807	1-234-177-21	FERRITE	0UH
FL808	1-234-177-21	FERRITE	0UH
FL901	1-781-923-21	FILTER, LOW PASS (SMD)	
FL904	1-234-177-21	FERRITE	0UH
FL905	1-234-177-21	FERRITE	0UH
FL906	1-234-177-21	FERRITE	0UH
FL8601	1-234-559-21	FILTER, LOW PASS	
FL8602	1-234-559-21	FILTER, LOW PASS	
FL8603	1-234-560-21	FILTER, LOW PASS	

<IC>

IC503	8-759-641-26	IC NJM2391DL1-33(TE1)
IC504	8-759-669-78	IC TLC2933IPWR-12
IC601	8-752-409-78	IC CXD2095AQ
IC602	6-701-120-01	IC W981616BH-7-EL10
IC605	8-749-015-18	IC PQ07VZ012ZP
IC701	6-700-188-01	IC IS41C16256-35K
IC702	6-702-503-01	IC TC90A90F(BH,DRY)
IC801	8-759-672-57	IC CXD9509AQ
IC802	8-759-677-37	IC MT48LC2M32B2TG-6
IC803	8-759-460-29	IC PST9120NL
IC804	8-759-082-57	IC TC7W04FU(TE12R)
IC901	8-752-414-92	IC CXD2309AQ-T6
IC902	6-801-939-01	IC MB94918RPF-G-149-BND
IC903	8-759-682-41	IC M24C32-WMN6T(A)
IC904	8-759-349-11	IC PST9145NL
IC8601	8-752-093-03	IC CXA3506R

<COIL>

L501	1-469-549-21	INDUCTOR	1UH
L502	1-469-549-21	INDUCTOR	1UH
L503	1-469-549-21	INDUCTOR	1UH
L504	1-469-549-21	INDUCTOR	1UH
L505	1-469-555-21	INDUCTOR	10UH

REF.NO.	PART NO.	DESCRIPTION	REMARK
L506	1-469-549-21	INDUCTOR 1UH	
L507	1-469-549-21	INDUCTOR 1UH	
L508	1-469-555-21	INDUCTOR 10UH	
L509	1-469-555-21	INDUCTOR 10UH	
L510	1-469-549-21	INDUCTOR 1UH	
L511	1-469-549-21	INDUCTOR 1UH	
L512	1-469-549-21	INDUCTOR 1UH	
L513	1-412-058-11	INDUCTOR 10UH	
L514	1-469-555-21	INDUCTOR 10UH	
L702	1-469-549-21	INDUCTOR 1UH	
L704	1-469-549-21	INDUCTOR 1UH	
L705	1-469-549-21	INDUCTOR 1UH	
L706	1-469-549-21	INDUCTOR 1UH	
L707	1-469-555-21	INDUCTOR 10UH	
L708	1-469-555-21	INDUCTOR 10UH	
L901	1-469-555-21	INDUCTOR 10UH	
L908	1-469-552-21	INDUCTOR 3.3UH	
L8601	1-469-555-21	INDUCTOR 10UH	
L8602	1-412-058-11	INDUCTOR 10UH	
L8604	1-469-555-21	INDUCTOR 10UH	
L8605	1-469-555-21	INDUCTOR 10UH	
L8606	1-469-555-21	INDUCTOR 10UH	
		<TRANSISTOR>	
Q304	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q501	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q502	8-729-905-36	TRANSISTOR 2SC4081T106S	
Q503	8-729-905-36	TRANSISTOR 2SC4081T106S	
Q517	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q518	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q519	8-729-402-42	TRANSISTOR UN5213-TX	
Q521	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q522	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q523	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q601	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q901	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q902	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q903	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q904	8-729-031-34	TRANSISTOR 2SK2034-TE85L	
Q905	8-729-031-34	TRANSISTOR 2SK2034-TE85L	
Q906	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q907	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q908	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q909	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q911	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q912	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q913	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q914	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q8601	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8602	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8603	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8604	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8605	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8606	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8607	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8608	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8609	8-729-905-35	TRANSISTOR 2SC4081T106R	

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R361	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R362	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R364	1-216-864-11	SHORT CHIP	0		
R414	1-216-809-11	METAL CHIP	100	5%	1/10W
R501	1-216-809-11	METAL CHIP	100	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-864-11	SHORT CHIP	0		
R504	1-216-864-11	SHORT CHIP	0		
R505	1-216-864-11	SHORT CHIP	0		
R506	1-216-809-11	METAL CHIP	100	5%	1/10W
R507	1-216-809-11	METAL CHIP	100	5%	1/10W
R508	1-216-809-11	METAL CHIP	100	5%	1/10W
R509	1-218-835-11	METAL CHIP	330	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-809-11	METAL CHIP	100	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-809-11	METAL CHIP	100	5%	1/10W
R520	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R523	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R526	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R528	1-218-835-11	METAL CHIP	330	5%	1/10W
R529	1-218-839-11	METAL CHIP	5.6K	0.5%	1/10W
R530	1-218-839-11	METAL CHIP	5.6K	0.5%	1/10W
R531	1-216-812-11	METAL CHIP	180	5%	1/10W
R532	1-218-839-11	METAL CHIP	5.6K	0.5%	1/10W
R533	1-216-812-11	METAL CHIP	180	5%	1/10W
R540	1-216-821-11	METAL CHIP	1K	5%	1/10W
R561	1-218-841-11	METAL CHIP	560	5%	1/10W
R562	1-218-841-11	METAL CHIP	560	5%	1/10W
R563	1-218-841-11	METAL CHIP	560	5%	1/10W
R596	1-216-821-11	METAL CHIP	1K	5%	1/10W
R601	1-216-801-11	METAL CHIP	22	5%	1/10W
R602	1-216-864-11	SHORT CHIP	0		
R603	1-216-864-11	SHORT CHIP	0		
R604	1-218-831-11	METAL CHIP	220	5%	1/10W
R605	1-216-864-11	SHORT CHIP	0		
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R610	1-218-831-11	METAL CHIP	220	5%	1/10W
R613	1-216-833-11	METAL CHIP	10K	5%	1/10W
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R617	1-216-864-11	SHORT CHIP	0		
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R631	1-216-864-11	SHORT CHIP	0		
R634	1-216-864-11	SHORT CHIP	0		
R635	1-216-864-11	SHORT CHIP	0		
R639	1-216-809-11	METAL CHIP	100	5%	1/10W
R640	1-216-801-11	METAL CHIP	22	5%	1/10W
R642	1-216-864-11	SHORT CHIP	0		
R643	1-216-864-11	SHORT CHIP	0		
R645	1-216-864-11	SHORT CHIP	0		
R647	1-218-837-11	METAL CHIP	390	5%	1/10W
R648	1-216-821-11	METAL CHIP	1K	5%	1/10W
R651	1-216-864-11	SHORT CHIP	0		
R653	1-216-809-11	METAL CHIP	100	5%	1/10W
R654	1-218-831-11	METAL CHIP	220	5%	1/10W
R657	1-216-801-11	METAL CHIP	22	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R660	1-216-809-11	METAL CHIP	100	5%	1/10W
R661	1-216-809-11	METAL CHIP	100	5%	1/10W
R662	1-216-864-11	SHORT CHIP	0		
R663	1-216-833-11	METAL CHIP	10K	5%	1/10W
R664	1-216-801-11	METAL CHIP	22	5%	1/10W
R665	1-216-814-11	METAL CHIP	270	5%	1/10W
R666	1-218-842-11	METAL CHIP	620	0.5%	1/10W
R667	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W
R668	1-216-801-11	RMETAL CHIP	22	5%	1/10W
R687	1-216-864-11	SHORT CHIP	0		
R689	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R701	1-216-864-11	SHORT CHIP	0		
R702	1-216-864-11	SHORT CHIP	0		
R704	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R706	1-216-809-11	METAL CHIP	100	5%	1/10W
R711	1-216-864-11	SHORT CHIP	0		
R712	1-216-833-11	METAL CHIP	10K	5%	1/10W
R713	1-216-864-11	SHORT CHIP	0		
R714	1-216-809-11	METAL CHIP	100	5%	1/10W
R715	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R716	1-216-864-11	SHORT CHIP	0		
R719	1-216-864-11	SHORT CHIP	0		
R720	1-216-864-11	SHORT CHIP	0		
R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R723	1-216-821-11	METAL CHIP	1K	5%	1/10W
R801	1-216-801-11	METAL CHIP	22	5%	1/10W
R802	1-216-801-11	METAL CHIP	22	5%	1/10W
R804	1-216-833-11	METAL CHIP	10K	5%	1/10W
R806	1-218-839-11	METAL CHIP	5.6K	0.5%	1/10W
R807	1-218-843-11	METAL CHIP	680	0.5%	1/10W
R809	1-216-809-11	METAL CHIP	100	5%	1/10W
R810	1-216-809-11	METAL CHIP	100	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R813	1-216-864-11	SHORT CHIP	0		
R814	1-216-833-11	METAL CHIP	10K	5%	1/10W
R815	1-216-833-11	METAL CHIP	10K	5%	1/10W
R816	1-216-833-11	METAL CHIP	10K	5%	1/10W
R817	1-216-805-11	METAL CHIP	47	5%	1/10W
R818	1-216-809-11	METAL CHIP	100	5%	1/10W
R819	1-216-809-11	METAL CHIP	100	5%	1/10W
R823	1-216-833-11	METAL CHIP	10K	5%	1/10W
R824	1-216-833-11	METAL CHIP	10K	5%	1/10W
R844	1-216-809-11	METAL CHIP	100	5%	1/10W
R845	1-216-809-11	METAL CHIP	100	5%	1/10W
R846	1-216-809-11	METAL CHIP	100	5%	1/10W
R847	1-216-809-11	METAL CHIP	100	5%	1/10W
R848	1-216-809-11	METAL CHIP	100	5%	1/10W
R849	1-216-809-11	METAL CHIP	100	5%	1/10W
R850	1-216-809-11	METAL CHIP	100	5%	1/10W
R851	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-809-11	METAL CHIP	100	5%	1/10W
R853	1-216-809-11	METAL CHIP	100	5%	1/10W
R854	1-216-809-11	METAL CHIP	100	5%	1/10W
R855	1-216-809-11	METAL CHIP	100	5%	1/10W
R856	1-216-809-11	METAL CHIP	100	5%	1/10W
R857	1-216-809-11	METAL CHIP	100	5%	1/10W
R858	1-216-809-11	METAL CHIP	100	5%	1/10W
R859	1-216-809-11	METAL CHIP	100	5%	1/10W
R860	1-216-809-11	METAL CHIP	100	5%	1/10W
R861	1-216-809-11	METAL CHIP	100	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R864	1-216-809-11	METAL CHIP	100	5%	1/10W
R865	1-216-809-11	METAL CHIP	100	5%	1/10W
R866	1-216-809-11	METAL CHIP	100	5%	1/10W
R867	1-216-809-11	METAL CHIP	100	5%	1/10W
R868	1-216-809-11	METAL CHIP	100	5%	1/10W
R869	1-216-809-11	METAL CHIP	100	5%	1/10W
R870	1-216-809-11	METAL CHIP	100	5%	1/10W
R871	1-216-809-11	METAL CHIP	100	5%	1/10W
R872	1-216-809-11	METAL CHIP	100	5%	1/10W
R873	1-216-809-11	METAL CHIP	100	5%	1/10W
R874	1-216-809-11	METAL CHIP	100	5%	1/10W
R875	1-216-809-11	METAL CHIP	100	5%	1/10W
R876	1-216-809-11	METAL CHIP	100	5%	1/10W
R877	1-216-809-11	METAL CHIP	100	5%	1/10W
R878	1-216-809-11	METAL CHIP	100	5%	1/10W
R879	1-216-809-11	METAL CHIP	100	5%	1/10W
R880	1-216-809-11	METAL CHIP	100	5%	1/10W
R881	1-216-809-11	METAL CHIP	100	5%	1/10W
R882	1-216-809-11	METAL CHIP	100	5%	1/10W
R883	1-216-809-11	METAL CHIP	100	5%	1/10W
R884	1-216-809-11	METAL CHIP	100	5%	1/10W
R885	1-216-809-11	METAL CHIP	100	5%	1/10W
R886	1-216-809-11	METAL CHIP	100	5%	1/10W
R887	1-216-809-11	METAL CHIP	100	5%	1/10W
R888	1-216-809-11	METAL CHIP	100	5%	1/10W
R889	1-216-805-11	METAL CHIP	47	5%	1/10W
R890	1-216-809-11	METAL CHIP	100	5%	1/10W
R891	1-216-809-11	METAL CHIP	100	5%	1/10W
R892	1-216-809-11	METAL CHIP	100	5%	1/10W
R893	1-216-809-11	METAL CHIP	100	5%	1/10W
R894	1-216-809-11	METAL CHIP	100	5%	1/10W
R895	1-216-809-11	METAL CHIP	100	5%	1/10W
R896	1-216-809-11	METAL CHIP	100	5%	1/10W
R897	1-216-809-11	METAL CHIP	100	5%	1/10W
R898	1-216-809-11	METAL CHIP	100	5%	1/10W
R899	1-216-833-11	METAL CHIP	10K	5%	1/10W
R901	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W
R902	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R903	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W
R904	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R905	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R906	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R907	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R908	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R909	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R910	1-216-833-11	METAL CHIP	10K	5%	1/10W
R911	1-216-833-11	METAL CHIP	10K	5%	1/10W
R914	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R916	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R917	1-216-809-11	METAL CHIP	100	5%	1/10W
R918	1-216-809-11	METAL CHIP	100	5%	1/10W
R919	1-216-809-11	METAL CHIP	100	5%	1/10W
R920	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R921	1-216-821-11	METAL CHIP	1K	5%	1/10W
R922	1-216-821-11	METAL CHIP	1K	5%	1/10W
R923	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R924	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R925	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R926	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R929	1-216-809-11	METAL CHIP	0100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R930	1-216-809-11	METAL CHIP	100	5%	1/10W
R931	1-218-839-11	METAL CHIP	470	5%	1/10W
R933	1-216-809-11	METAL CHIP	100	5%	1/10W
R934	1-216-809-11	METAL CHIP	100	5%	1/10W
R935	1-216-833-11	METAL CHIP	10K	5%	1/10W
R936	1-216-833-11	METAL CHIP	10K	5%	1/10W
R937	1-216-805-11	METAL CHIP	47	5%	1/10W
R938	1-216-809-11	METAL CHIP	100	5%	1/10W
R940	1-216-864-11	SHORT CHIP	0		
R941	1-216-864-11	SHORT CHIP	0		
R942	1-218-835-11	METAL CHIP	330	5%	1/10W
R943	1-218-831-11	METAL CHIP	220	5%	1/10W
R946	1-216-809-11	METAL CHIP	100	5%	1/10W
R948	1-216-864-11	SHORT CHIP	0		
R949	1-218-851-11	METAL CHIP	1.5K	0.5%	1/10W
R950	1-216-809-11	METAL CHIP	100	5%	1/10W
R951	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R952	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R954	1-216-821-11	METAL CHIP	1K	5%	1/10W
R955	1-216-821-11	METAL CHIP	1K	5%	1/10W
R956	1-216-809-11	METAL CHIP	100	5%	1/10W
R957	1-216-809-11	METAL CHIP	100	5%	1/10W
R958	1-218-839-11	METAL CHIP	470	5%	1/10W
R959	1-218-839-11	METAL CHIP	470	5%	1/10W
R960	1-218-839-11	METAL CHIP	470	5%	1/10W
R961	1-216-801-11	METAL CHIP	22	5%	1/10W
R962	1-216-801-11	METAL CHIP	22	5%	1/10W
R963	1-216-801-11	METAL CHIP	22	5%	1/10W
R965	1-216-809-11	METAL CHIP	100	5%	1/10W
R966	1-216-845-11	METAL CHIP	100K	5%	1/10W
R967	1-216-845-11	METAL CHIP	100K	5%	1/10W
R968	1-216-833-11	METAL CHIP	10K	5%	1/10W
R969	1-216-833-11	METAL CHIP	10K	5%	1/10W
R971	1-216-821-11	METAL CHIP	1K	5%	1/10W
R972	1-216-864-11	SHORT CHIP	0		
R974	1-216-864-11	SHORT CHIP	0		
R975	1-218-849-11	METAL CHIP	1.2K	0.5%	1/10W
R976	1-216-864-11	SHORT CHIP	0		
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-864-11	SHORT CHIP	0		
R980	1-216-864-11	SHORT CHIP	0		
R984	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R985	1-218-911-11	METAL CHIP	470K	5%	1/10W
R986	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R987	1-216-821-11	METAL CHIP	1K	5%	1/10W
R988	1-218-831-11	METAL CHIP	220	5%	1/10W
R989	1-216-837-11	METAL CHIP	22K	5%	1/10W
R990	1-218-911-11	METAL CHIP	470K	5%	1/10W
R991	1-216-864-11	SHORT CHIP	0		
R993	1-218-887-11	METAL CHIP	47K	5%	1/10W
R998	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5503	1-216-809-11	METAL CHIP	100	5%	1/10W
R5504	1-216-809-11	METAL CHIP	100	5%	1/10W
R5505	1-216-809-11	METAL CHIP	100	5%	1/10W
R5508	1-216-864-11	SHORT CHIP	0		
R6001	1-216-864-11	SHORT CHIP	0		
R6003	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6004	1-216-864-11	SHORT CHIP	0		
R6005	1-216-864-11	SHORT CHIP	0		
R6010	1-216-864-11	SHORT CHIP	0		

REF.NO.	PART NO.	DESCRIPTION			REMARK
R6024	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6026	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6027	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8603	1-218-843-11	METAL CHIP	680	5%	1/10W
R8604	1-218-843-11	METAL CHIP	680	5%	1/10W
R8605	1-218-843-11	METAL CHIP	680	5%	1/10W
R8606	1-216-809-11	METAL CHIP	100	5%	1/10W
R8607	1-216-809-11	METAL CHIP	100	5%	1/10W
R8608	1-216-809-11	METAL CHIP	100	5%	1/10W
R8609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8610	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8611	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8612	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8613	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8614	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8618	1-218-834-11	METAL CHIP	300	0.5%	1/10W
R8619	1-218-834-11	METAL CHIP	300	0.5%	1/10W
R8620	1-218-830-11	METAL CHIP	200	0.5%	1/10W
R8622	1-218-834-11	METAL CHIP	300	0.5%	1/10W
R8623	1-218-834-11	METAL CHIP	300	0.5%	1/10W
R8624	1-218-830-11	METAL CHIP	200	0.5%	1/10W
R8626	1-216-809-11	METAL CHIP	100	5%	1/10W
R8627	1-216-809-11	METAL CHIP	100	5%	1/10W
R8628	1-216-809-11	METAL CHIP	100	5%	1/10W
R8629	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8630	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8631	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8636	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8637	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8638	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8639	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R8641	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8642	1-218-858-11	METAL CHIP	3K	0.5%	1/10W
R8643	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8645	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8646	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8647	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8648	1-218-865-11	METAL CHIP	5.6K	5%	1/10W
R8650	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8651	1-216-801-11	METAL CHIP	22	5%	1/10W
R8652	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8653	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8660	1-216-809-11	METAL CHIP	100	5%	1/10W
R8661	1-216-809-11	METAL CHIP	100	5%	1/10W
R8662	1-216-809-11	METAL CHIP	100	5%	1/10W

<NETWORK>

RB001	1-233-576-11	RES, CHIP NETWORK	100	
RB002	1-233-576-11	RES, CHIP NETWORK	100	
RB003	1-233-576-11	RES, CHIP NETWORK	100	
RB004	1-233-576-11	RES, CHIP NETWORK	100	
RB005	1-233-576-11	RES, CHIP NETWORK	100	
RB006	1-233-576-11	RES, CHIP NETWORK	100	
RB007	1-233-813-11	RES, NETWORK	150	
RB008	1-233-813-11	RES, NETWORK	150	
RB009	1-233-813-11	RES, NETWORK	150	
RB010	1-233-813-11	RES, NETWORK	150	
RB011	1-233-813-11	RES, NETWORK	150	
RB012	1-233-813-11	RES, NETWORK	150	
RB019	1-233-576-11	RES, CHIP NETWORK	100	
RB020	1-233-576-11	RES, CHIP NETWORK	100	

REF.NO.	PART NO.	DESCRIPTION				REMARK
RB021	1-233-576-11	RES, CHIP NETWORK	100			
RB022	1-233-576-11	RES, CHIP NETWORK	100			
RB023	1-233-576-11	RES, CHIP NETWORK	100			
RB024	1-233-576-11	RES, CHIP NETWORK	100			
RB025	1-233-576-11	RES, CHIP NETWORK	100			
RB026	1-233-576-11	RES, CHIP NETWORK	100			
RB027	1-233-576-11	RES, CHIP NETWORK	100			
RB701	1-233-576-11	RES, CHIP NETWORK	100			
RB702	1-233-576-11	RES, CHIP NETWORK	100			
RB703	1-233-576-11	RES, CHIP NETWORK	100			
RB704	1-233-576-11	RES, CHIP NETWORK	100			
RB705	1-233-576-11	RES, CHIP NETWORK	100			
RB706	1-233-576-11	RES, CHIP NETWORK	100			
RB707	1-233-576-11	RES, CHIP NETWORK	100			
RB708	1-233-576-11	RES, CHIP NETWORK	100			
RB709	1-233-576-11	RES, CHIP NETWORK	100			
RB710	1-233-576-11	RES, CHIP NETWORK	100			
RB711	1-233-576-11	RES, CHIP NETWORK	100			
RB8601	1-233-576-11	RES, CHIP NETWORK	100			
RB8602	1-233-576-11	RES, CHIP NETWORK	100			
RB8603	1-233-576-11	RES, CHIP NETWORK	100			
RB8604	1-233-576-11	RES, CHIP NETWORK	100			
RB8605	1-233-576-11	RES, CHIP NETWORK	100			
RB8606	1-233-576-11	RES, CHIP NETWORK	100			
		<CRYSTAL>				
X802	1-781-887-21	VIBRATOR, CRYSTAL (18.843956MHz)				
X901	1-781-945-21	VIBRATOR, CERAMIC				
**********						
		*A-1401-998-A A1 BOARD, MOUNT				
		**********				
		<CAPACITOR>				
C8200	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V	
C8202	1-126-935-11	ELECT	470UF	20.00%	16V	
C8203	1-126-947-11	ELECT	47UF	20.00%	16V	
C8204	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V	
C8205	1-107-698-11	ELECT	10UF	20.00%	25V	
C8207	1-107-698-11	ELECT	10UF	20.00%	25V	
C8208	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8209	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8210	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8211	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8216	1-126-935-11	ELECT	470UF	20.00%	16V	
C8217	1-104-665-11	ELECT	100UF	20.00%	25V	
C8222	1-128-934-91	CERAMIC CHIP	0.33UF	20%	10V	
C8223	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8224	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8225	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8226	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8227	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8228	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8229	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8230	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C8232	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8233	1-117-720-11	CERAMIC CHIP	4.7UF		10V	
C8235	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V	
C8236	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V	
C8237	1-115-467-11	CERAMIC CHIP	0.22UF	10.00%	10V	
C8238	1-115-467-11	CERAMIC CHIP	0.22UF	10.00%	10V	
C8239	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V	
C8276	1-165-176-11	CERAMIC CHIP	0.047UF	10.00%	16V	
C8277	1-165-176-11	CERAMIC CHIP	0.047UF	10.00%	16V	
C8279	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	
C8280	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	
C8281	1-115-467-11	CERAMIC CHIP	0.22UF	10.00%	10V	
C8282	1-115-467-11	CERAMIC CHIP	0.22UF	10.00%	10V	
C8283	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V	
C8284	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V	
C8285	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V	
C8286	1-162-967-11	CERAMIC CHIP	0.0033UF	10.00%	50V	
C8287	1-162-967-11	CERAMIC CHIP	0.0033UF	10.00%	50V	
C8288	1-164-677-11	CERAMIC CHIP	0.033UF	10.00%	16V	
C8289	1-164-677-11	CERAMIC CHIP	0.033UF	10.00%	16V	
C8291	1-126-935-11	ELECT	470UF	20.00%	16V	
C8292	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V	
C8293	1-162-969-11	CERAMIC CHIP	0.0068UF	10.00%	25V	
C8295	1-126-935-11	ELECT	470UF	20.00%	16V	
C8296	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V	
		<CONNECTOR>				
CN8102	1-793-496-11	CONNECTOR, BOARD TO BOARD 20P				
		<DIODE>				
D8217	8-719-081-97	DIODE MMDL914T1				
D8218	8-719-081-97	DIODE MMDL914T1				
		<IC>				
IC8200	8-759-100-96	IC NJM4558M-TE2				
IC8205	8-759-711-10	IC NJU4066BM-T2				
IC8207	6-702-145-01	IC NJW1139GK1-TE2				
		<COIL>				
L8201	1-414-857-11	INDUCTOR	100UH			
		<TRANSISTOR>				
Q8101	8-729-907-00	TRANSISTOR DTC114EUA-T106				
Q8102	8-729-907-00	TRANSISTOR DTC114EUA-T106				
Q8103	8-729-907-00	TRANSISTOR DTC114EUA-T106				
		<RESISTOR>				
R8200	1-218-704-11	METAL CHIP	3.3K	0.5%	1/10W	
R8201	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W	
R8202	1-218-704-11	METAL CHIP	3.3K	0.5%	1/10W	
R8203	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R8204	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R8205	1-125-838-11	CERAMIC CHIP	2.2UF	10%	6.3V	
R8206	1-125-838-11	CERAMIC CHIP	2.2UF	10%	6.3V	
R8207	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W	
R8217	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R8218	1-216-835-11	METAL CHIP	15K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8219	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8219	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8220	1-216-836-11	METAL CHIP	18K	5%	1/10W
R8222	1-216-836-11	METAL CHIP	18K	5%	1/10W
R8269	1-216-809-11	METAL CHIP	100	5%	1/10W
R8270	1-216-809-11	METAL CHIP	100	5%	1/10W
R8271	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8272	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8273	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8274	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8275	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8276	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8277	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8278	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8279	1-216-837-11	METAL CHIP	22K	5%	1/10W

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*A-1300-956-A J BOARD, COMPLETE
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<CAPACITOR>

C2001	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2002	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2003	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2004	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2005	1-164-392-11	CERAMIC CHIP	390PF	5.00%	50V
C2006	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2008	1-126-933-11	ELECT	100UF	20.00%	16V
C2009	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2010	1-162-975-11	CERAMIC CHIP	24PF	5.00%	50V
C2011	1-162-975-11	CERAMIC CHIP	24PF	5.00%	50V
C2012	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2013	1-126-947-11	ELECT	47UF	20.00%	16V
C2014	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2015	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2016	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2017	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2018	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2019	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2020	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2022	1-126-933-11	ELECT	100UF	20.00%	16V
C2023	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2029	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2031	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2032	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2033	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2034	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2035	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2036	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2037	1-126-947-11	ELECT	47UF	20.00%	16V
C2038	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2039	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2040	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2041	1-126-933-11	ELECT	100UF	20.00%	16V
C2042	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2043	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C2044	1-126-933-11	ELECT	100UF	20.00%	16V
C2045	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C2046	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2047	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2048	1-126-964-11	ELECT	10UF	20.00%	50V
C2049	1-165-908-91	CERAMIC CHIP	1UF	10%	10
C2050	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2051	1-126-964-11	ELECT	10UF	20.00%	50V
C2053	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2055	1-126-947-11	ELECT	47UF	20.00%	16V
C2056	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2058	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2063	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2064	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2066	1-126-947-11	ELECT	47UF	20.00%	16V
C2067	1-126-933-11	ELECT	100UF	20.00%	16V
C2074	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2075	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2078	1-126-947-11	ELECT	47UF	20.00%	16V
C2079	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2096	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2097	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2100	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2101	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2102	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2103	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2104	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2105	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2300	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2301	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2302	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2303	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2304	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2305	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2306	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2307	1-126-933-11	ELECT	100UF	20.00%	16V
C2308	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C2309	1-126-947-11	ELECT	47UF	20.00%	16V
C2310	1-126-947-11	ELECT	47UF	20.00%	16V
C2312	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2313	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2314	1-162-963-11	CERAMIC CHIP	680PF	10.00%	50V
C2315	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2316	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2317	1-126-933-11	ELECT	100UF	20.00%	16V
C2318	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C2319	1-162-919-11	CERAMIC CHIP	22PF	5.00%	50V
C2320	1-162-916-11	CERAMIC CHIP	12PF	5.00%	50V
C2321	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2322	1-162-919-11	CERAMIC CHIP	22PF	5.00%	50V
C2323	1-162-916-11	CERAMIC CHIP	12PF	5.00%	50V
C2324	1-126-947-11	ELECT	47UF	20.00%	16V
C2326	1-126-947-11	ELECT	47UF	20.00%	16V
C2327	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8300	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8301	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8302	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8303	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8304	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8305	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8306	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8307	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8308	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8309	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8310	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8311	1-115-156-11	CERAMIC CHIP	1UF		10V
C8312	1-115-156-11	CERAMIC CHIP	1UF		10V
C8313	1-115-156-11	CERAMIC CHIP	1UF		10V
C8314	1-115-156-11	CERAMIC CHIP	1UF		10V
C8315	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8316	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8317	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8318	1-115-156-11	CERAMIC CHIP	1UF		10V
C8319	1-115-156-11	CERAMIC CHIP	1UF		10V
C8320	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8321	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8322	1-115-156-11	CERAMIC CHIP	1UF		10V
C8323	1-115-156-11	CERAMIC CHIP	1UF		10V
C8324	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8325	1-126-935-11	ELECT	470UF	20.00%	16V
C8326	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8327	1-115-156-11	CERAMIC CHIP	1UF		10V
C8328	1-115-156-11	CERAMIC CHIP	1UF		10V
C8330	1-115-156-11	CERAMIC CHIP	1UF		10V
C8331	1-115-156-11	CERAMIC CHIP	1UF		10V
C8333	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C8336	1-126-947-11	ELECT	47UF	20.00%	16V
C8337	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8338	1-115-156-11	CERAMIC CHIP	1UF		10V
C8339	1-115-156-11	CERAMIC CHIP	1UF		10V
C8340	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8341	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8342	1-126-964-11	ELECT	10UF	20.00%	50V
C8343	1-126-947-11	ELECT	47UF	20.00%	16V
C8344	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8346	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8347	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8348	1-115-156-11	CERAMIC CHIP	1UF		10V
C8349	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8350	1-115-156-11	CERAMIC CHIP	1UF		10V
C8352	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C8353	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C8354	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8355	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8356	1-115-156-11	CERAMIC CHIP	1UF		10V
C8357	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8358	1-115-156-11	CERAMIC CHIP	1UF		10V
C8359	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C8360	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8361	1-126-961-11	ELECT	2.2UF	20.00%	50V
C8362	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8363	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8364	1-126-947-11	ELECT	47UF	20.00%	16V
C8366	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8367	1-126-947-11	ELECT	47UF	20.00%	16V
C8368	1-126-947-11	ELECT	47UF	20.00%	16V
C8369	1-126-947-11	ELECT	47UF	20.00%	16V
C8370	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8371	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8372	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8373	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C8374	1-115-156-11	CERAMIC CHIP	1UF		10V
C8375	1-126-964-11	ELECT	10UF	20.00%	50V
C8376	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8377	1-115-156-11	CERAMIC CHIP	1UF		10V
C8378	1-115-156-11	CERAMIC CHIP	1UF		10V
C8380	1-115-156-11	CERAMIC CHIP	1UF		10V
C8381	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8382	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8386	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8390	1-126-963-11	ELECT	4.7UF	20.00%	50V
C8391	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8392	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8393	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8396	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8399	1-126-961-11	ELECT	2.2UF	20.00%	50V
C8401	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8405	1-115-156-11	CERAMIC CHIP	1UF		10V
C8406	1-126-947-11	ELECT	47UF	20.00%	16V
C8407	1-126-947-11	ELECT	47UF	20.00%	16V
C8408	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8409	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C8410	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8412	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8414	1-126-947-11	ELECT	47UF	20.00%	16V
C8415	1-115-156-11	CERAMIC CHIP	1UF		10V
C8416	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8417	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C8418	1-126-964-11	ELECT	10UF	20.00%	50V
C8419	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8420	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8421	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8423	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8424	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8425	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8437	1-126-963-11	ELECT	4.7UF	20.00%	50V
C8438	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8439	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8440	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8441	1-115-156-11	CERAMIC CHIP	1UF		10V
C8445	1-115-156-11	CERAMIC CHIP	1UF		10V
C8446	1-126-947-11	ELECT	47UF	20.00%	16V
C8447	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8448	1-164-690-91	CERAMIC CHIP	0.0022UF	5.00%	50V
C8450	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8451	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8452	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8453	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8454	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8455	1-126-947-11	ELECT	47UF	20.00%	16V
C8456	1-126-947-11	ELECT	47UF	20.00%	16V
C8457	1-126-947-11	ELECT	47UF	20.00%	16V
C8459	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8488	1-115-156-11	CERAMIC CHIP	1UF		10V
C8489	1-115-156-11	CERAMIC CHIP	1UF		10V
C8491	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8494	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8497	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8499	1-126-947-11	ELECT	47UF	20.00%	16V
C8500	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8520	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8521	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8701	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8702	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C8703	1-115-156-11	CERAMIC CHIP	1UF		10V
C8704	1-115-156-11	CERAMIC CHIP	1UF		10V
C8801	1-126-947-11	ELECT	47UF	20.00%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8802	1-126-947-11	ELECT	47UF	20.00%	16V
C8803	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8804	1-126-947-11	ELECT	47UF	20.00%	16V
C8806	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8808	1-126-947-11	ELECT	47UF	20.00%	16V
C8812	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8814	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8815	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8816	1-126-964-11	ELECT	10UF	20.00%	50V
C8817	1-126-964-11	ELECT	10UF	20.00%	50V
C8818	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8819	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8820	1-126-947-11	ELECT	47UF	20.00%	16V
C8821	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8822	1-126-947-11	ELECT	47UF	20.00%	16V
C8823	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8826	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8827	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8828	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8829	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8870	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8871	1-126-947-11	ELECT	47UF	20.00%	16V
C8872	1-126-947-11	ELECT	47UF	20.00%	16V
C8873	1-126-947-11	ELECT	47UF	20.00%	16V
C8874	1-126-947-11	ELECT	47UF	20.00%	16V
C8875	1-126-947-11	ELECT	47UF	20.00%	16V
C8876	1-126-947-11	ELECT	47UF	20.00%	16V
C8877	1-126-947-11	ELECT	47UF	20.00%	16V
C8882	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8885	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C8886	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8887	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8888	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8889	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8890	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8891	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8892	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C8893	1-126-964-11	ELECT	10UF	20.00%	50V
C8894	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V

<CONNECTOR>

CN8301	*1-564-524-11	PLUG, CONNECTOR 9P	
CN8302	1-695-915-11	TAB (CONTACT)	
CN8304	*1-785-303-11	CONNECTOR, DIN (PLUG) 64P	

<DIODE>

D8301	8-719-158-35	DIODE RD9.1SB-T1
D8302	8-719-158-35	DIODE RD9.1SB-T1
D8303	8-719-158-35	DIODE RD9.1SB-T1
D8304	8-719-158-35	DIODE RD9.1SB-T1
D8305	8-719-158-35	DIODE RD9.1SB-T1
D8306	8-719-158-35	DIODE RD9.1SB-T1
D8307	8-719-158-35	DIODE RD9.1SB-T1
D8308	8-719-158-35	DIODE RD9.1SB-T1
D8309	8-719-158-35	DIODE RD9.1SB-T1
D8310	8-719-158-35	DIODE RD9.1SB-T1
D8311	8-719-158-35	DIODE RD9.1SB-T1
D8312	8-719-158-35	DIODE RD9.1SB-T1
D8313	8-719-158-35	DIODE RD9.1SB-T1
D8314	8-719-158-35	DIODE RD9.1SB-T1
D8318	8-719-158-35	DIODE RD9.1SB-T1
D8319	8-719-158-35	DIODE RD9.1SB-T1
D8320	8-719-158-35	DIODE RD9.1SB-T1
D8321	8-719-158-35	DIODE RD9.1SB-T1
D8322	8-719-158-35	DIODE RD9.1SB-T1
D8323	8-719-158-35	DIODE RD9.1SB-T1
D8324	8-719-158-35	DIODE RD9.1SB-T1
D8325	8-719-158-35	DIODE RD9.1SB-T1
D8326	8-719-158-35	DIODE RD9.1SB-T1
D8331	8-719-081-97	DIODE MMDL914T1
D8332	8-719-036-94	DIODE RD5.6SB-T1
D8701	8-719-158-35	DIODE RD9.1SB-T1
D8702	8-719-158-35	DIODE RD9.1SB-T1

<FERRITE BEAD>

FB2001	1-414-234-22	FERRITE	0UH
FB2002	1-414-229-11	FERRITE	0UH
FB2003	1-414-229-11	FERRITE	0UH
FB2004	1-216-295-91	SHORT CHIP	0
FB2006	1-414-228-11	FERRITE	0UH
FB2007	1-414-228-11	FERRITE	0UH
FB2008	1-414-234-22	FERRITE	0UH
FB2009	1-414-228-11	FERRITE	0UH
FB2010	1-414-228-11	FERRITE	0UH
FB2011	1-414-228-11	FERRITE	0UH
FB2012	1-414-229-11	FERRITE	0UH
FB2013	1-414-228-11	FERRITE	0UH
FB2301	1-414-228-11	FERRITE	0UH
FB2302	1-414-234-22	FERRITE	0UH
FB8802	1-414-553-11	FERRITE	0UH

<FILTER>

FL2001	1-239-848-11	FILTER, LOW PASS
FL2002	1-239-848-11	FILTER, LOW PASS
FL2003	1-239-848-11	FILTER, LOW PASS
FL2004	1-239-848-11	FILTER, LOW PASS
FL8301	1-236-071-11	ENCAPSULATED COMPONENT
FL8303	1-236-071-11	ENCAPSULATED COMPONENT
FL8304	1-236-071-11	ENCAPSULATED COMPONENT
FL8305	1-236-071-11	ENCAPSULATED COMPONENT
FL8307	1-236-071-11	ENCAPSULATED COMPONENT
FL8308	1-236-071-11	ENCAPSULATED COMPONENT
FL8309	1-236-071-11	ENCAPSULATED COMPONENT
FL8311	1-236-071-11	ENCAPSULATED COMPONENT

<IC>

IC2001	6-700-399-01	IC UPC2925T-E1
IC2004	6-700-960-01	IC UPD64083GF-3BA
IC2005	8-759-431-14	IC PQ3DZ53U
IC2300	6-701-972-01	IC TC90A69F (ELP)
IC8302	8-752-080-04	IC CXA2069Q
IC8304	8-759-576-72	IC LF50CDT-TR
IC8305	8-759-576-72	IC LF50CDT-TR
IC8306	8-752-099-05	IC CXA2163AQ-T6
IC8308	8-752-099-05	IC CXA2163AQ-T6
IC8309	8-759-337-26	IC MM1115XFBE
IC8310	8-759-572-04	IC TDA9178T/N1.118
IC8312	8-759-485-79	IC TC7SET08FU(TE85R)
IC8801	8-759-450-93	IC NJM2521M-TE1

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC8802	8-759-450-93	IC NJM2521M-TE1	
IC8805	8-752-103-44	IC CXA2171Q	
IC8870	8-759-548-56	IC M52055FP	
IC8871	8-759-595-97	IC SN74LV4053ANSR	
IC8872	8-759-485-79	IC TC7SET08FU(TE85R)	
		<JACK>	
J8301	1-774-748-11	TERMINAL BLOCK, S (VIDEO IN1)	
J8302	1-774-746-11	JACK BLOCK, PIN (VIDEO IN2)	
J8303	1-774-746-11	JACK BLOCK, PIN (VIDEO IN3)	
J8304	1-774-746-11	JACK BLOCK, PIN (MONITOR OUT)	
J8305	1-695-444-11	PIN JACK BLOCK 3P (S VIDEO OUT)	
J8306	1-816-597-11	PIN JACK BLOCK 2P (SYNC HD/VD)	
J8307	1-565-838-11	JACK BLOCK, PIN 2P (S VIDEO IN1)	
J8308	1-695-444-11	PIN JACK BLOCK 3P (S VIDEO IN2)	
J8309	1-565-838-11	JACK BLOCK, PIN 2P (S VIDEO IN2)	
		<COIL>	
L2001	1-469-555-21	INDUCTOR 10UH	
L2002	1-412-002-31	INDUCTOR 4.7UH	
L2003	1-469-555-21	INDUCTOR 10UH	
L2005	1-469-555-21	INDUCTOR 10UH	
L2007	1-469-555-21	INDUCTOR 10UH	
L2008	1-469-555-21	INDUCTOR 10UH	
L2300	1-412-029-11	INDUCTOR 10UH	
L2301	1-412-032-11	INDUCTOR 100UH	
L2302	1-412-032-11	INDUCTOR 100UH	
L2303	1-412-031-11	INDUCTOR 47UH	
L2304	1-469-756-31	INDUCTOR 27UH	
L2305	1-469-756-31	INDUCTOR 27UH	
L2306	1-412-029-11	INDUCTOR 10UH	
L8802	1-469-555-21	INDUCTOR 10UH	
L8803	1-412-029-11	INDUCTOR 10UH	
L8804	1-412-029-11	INDUCTOR 10UH	
L8870	1-412-029-11	INDUCTOR 10UH	
L8871	1-412-029-11	INDUCTOR 10UH	
L8872	1-412-029-11	INDUCTOR 10UH	
		<TRANSISTOR>	
Q2002	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2003	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2004	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2005	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2006	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2007	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2008	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2009	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2010	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2011	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2012	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2013	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2014	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2015	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2016	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2018	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2019	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2301	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2302	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2303	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2304	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2305	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2306	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2307	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2308	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2309	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q2310	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8301	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8302	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8303	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8304	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8305	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8306	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8308	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8309	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8310	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8311	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8312	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8313	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8316	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8319	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8320	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8321	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8322	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8326	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8327	8-729-421-19	TRANSISTOR UN2213-TX	
Q8328	8-729-421-19	TRANSISTOR UN2213-TX	
Q8329	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8330	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8331	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8332	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8333	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8334	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8335	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8336	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8342	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8343	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8361	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8362	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8363	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8364	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8401	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8402	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8403	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8404	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8405	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8406	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8407	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8408	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8409	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8410	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8463	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8464	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8465	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8466	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8801	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8802	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8803	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q8804	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q8805	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q8806	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q8807	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q8808	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q8809	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q8870	8-729-905-35	TRANSISTOR 2SC4081T106R			
		<RESISTOR>			
R2002	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2011	1-218-839-11	METAL SHIP	470	5%	1/10W
R2015	1-218-839-11	METAL SHIP	470	5%	1/10W
R2021	1-216-809-11	METAL SHIP	100	5%	1/10W
R2022	1-218-985-11	METAL SHIP	47	0.5%	1/10W
R2023	1-218-985-11	METAL SHIP	47	0.5%	1/10W
R2027	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2028	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2029	1-218-841-11	METAL SHIP	560	0.5%	1/10W
R2030	1-218-841-11	METAL SHIP	560	0.5%	1/10W
R2031	1-218-865-11	METAL SHIP	5.6K	5%	1/10W
R2032	1-218-865-11	METAL SHIP	5.6K	5%	1/10W
R2033	1-218-839-11	METAL SHIP	470	5%	1/10W
R2034	1-218-839-11	METAL SHIP	470	5%	1/10W
R2035	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2036	1-218-684-11	METAL CHIP	470	0.5%	1/10W
R2037	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2039	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R2040	1-218-845-11	METAL SHIP	820	0.5%	1/10W
R2041	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R2042	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R2043	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2044	1-218-845-11	METAL SHIP	820	0.5%	1/10W
R2046	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R2047	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2048	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2049	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2050	1-216-805-11	METAL SHIP	47	5%	1/10W
R2051	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2052	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2053	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2054	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2055	1-216-805-11	METAL SHIP	47	5%	1/10W
R2056	1-218-865-11	METAL SHIP	5.6K	0.5%	1/10W
R2057	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2058	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R2059	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2060	1-216-809-11	METAL SHIP	100	5%	1/10W
R2061	1-218-841-11	METAL SHIP	560	0.5%	1/10W
R2062	1-218-903-11	METAL SHIP	220K	5%	1/10W
R2063	1-218-887-11	METAL SHIP	47K	5%	1/10W
R2064	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2066	1-218-831-11	METAL SHIP	220	5%	1/10W
R2067	1-218-841-11	METAL SHIP	560	5%	1/10W
R2069	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R2070	1-218-678-11	METAL CHIP	270	0.5%	1/10W
R2071	1-218-865-11	METAL SHIP	5.6K	0.5%	1/10W
R2072	1-218-841-11	METAL SHIP	560	0.5%	1/10W
R2073	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2074	1-216-809-11	METAL SHIP	100	5%	1/10W
R2076	1-216-809-11	METAL SHIP	100	5%	1/10W
R2077	1-216-809-11	METAL SHIP	100	5%	1/10W
R2108	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2115	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2301	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2306	1-218-837-11	METAL SHIP	390	0.5%	1/10W
R2307	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2308	1-218-845-11	METAL SHIP	820	0.5%	1/10W
R2309	1-218-849-11	METAL SHIP	1.2K	0.5%	1/10W
R2310	1-218-867-11	METAL SHIP	6.8K	0.5%	1/10W
R2311	1-216-834-11	METAL SHIP	12K	5%	1/10W
R2312	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2313	1-216-864-11	SHORT CHIP	0		
R2314	1-218-837-11	METAL SHIP	390	0.5%	1/10W
R2315	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2318	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2319	1-218-845-11	METAL SHIP	820	0.5%	1/10W
R2320	1-218-849-11	METAL SHIP	1.2K	0.5%	1/10W
R2321	1-216-834-11	METAL SHIP	12K	5%	1/10W
R2322	1-218-867-11	METAL SHIP	6.8K	0.5%	1/10W
R2323	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2324	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2325	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R2327	1-216-805-11	METAL SHIP	47	5%	1/10W
R2328	1-216-805-11	METAL SHIP	47	5%	1/10W
R2330	1-218-835-11	METAL SHIP	330	0.5%	1/10W
R2331	1-216-864-11	SHORT CHIP	0		
R2333	1-216-809-11	METAL SHIP	100	5%	1/10W
R2334	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2335	1-216-864-11	SHORT CHIP	0		
R2336	1-216-821-11	METAL SHIP	1K	5%	1/10W
R2337	1-216-864-11	SHORT CHIP	0		
R2338	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8210	1-216-809-11	METAL SHIP	100	5%	1/10W
R8211	1-216-809-11	METAL SHIP	100	5%	1/10W
R8212	1-216-809-11	METAL SHIP	100	5%	1/10W
R8213	1-216-809-11	METAL SHIP	100	5%	1/10W
R8301	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8302	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8303	1-211-989-11	METAL SHIP	68	0.5%	1/10W
R8304	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R8305	1-218-911-11	METAL SHIP	470K	0.5%	1/10W
R8306	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8307	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8308	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8309	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8310	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8311	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8312	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8313	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8314	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8315	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8316	1-218-911-11	METAL SHIP	470K	0.5%	1/10W
R8317	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8318	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8319	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8320	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8321	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8322	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8323	1-216-864-11	SHORT CHIP	0		
R8324	1-216-864-11	SHORT CHIP	0		
R8325	1-216-864-11	SHORT CHIP	0		
R8326	1-218-911-11	METAL SHIP	470K	0.5%	1/10W
R8327	1-216-864-11	SHORT CHIP	0		
R8328	1-218-911-11	METAL SHIP	470K	0.5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8329	1-218-911-11	METAL SHIP	470K	0.5%	1/10W
R8330	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8331	1-216-864-11	SHORT CHIP	0		
R8332	1-216-864-11	SHORT CHIP	0		
R8333	1-216-864-11	SHORT CHIP	0		
R8334	1-216-864-11	SHORT CHIP	0		
R8335	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8336	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8337	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8338	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8339	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8340	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8341	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8342	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8343	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8344	1-218-285-11	METAL SHIP	75	0.5%	1/10W
R8345	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8346	1-216-812-11	METAL SHIP	180	5%	1/10W
R8347	1-216-809-11	METAL SHIP	100	5%	1/10W
R8348	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R8349	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8350	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8351	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8352	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8353	1-216-805-11	METAL SHIP	47	5%	1/10W
R8354	1-216-805-11	METAL SHIP	47	5%	1/10W
R8355	1-216-864-11	SHORT CHIP	0		
R8356	1-216-864-11	SHORT CHIP	0		
R8357	1-216-805-11	METAL SHIP	47	5%	1/10W
R8358	1-216-805-11	METAL SHIP	47	5%	1/10W
R8361	1-216-805-11	METAL SHIP	47	5%	1/10W
R8362	1-216-805-11	METAL SHIP	47	5%	1/10W
R8363	1-211-989-11	METAL SHIP	68	0.5%	1/10W
R8364	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8365	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8366	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8367	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8368	1-216-809-11	METAL SHIP	100	5%	1/10W
R8369	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8370	1-216-809-11	METAL SHIP	100	5%	1/10W
R8376	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8377	1-216-809-11	METAL SHIP	100	5%	1/10W
R8378	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8379	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8380	1-216-809-11	METAL SHIP	100	5%	1/10W
R8381	1-216-809-11	METAL SHIP	100	5%	1/10W
R8382	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8383	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8384	1-216-809-11	METAL SHIP	100	5%	1/10W
R8385	1-216-809-11	METAL SHIP	100	5%	1/10W
R8386	1-216-809-11	METAL SHIP	100	5%	1/10W
R8388	1-216-864-11	SHORT CHIP	0		
R8389	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8395	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8396	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8398	1-216-809-11	METAL SHIP	100	5%	1/10W
R8399	1-216-809-11	METAL SHIP	100	5%	1/10W
R8400	1-216-809-11	METAL SHIP	100	5%	1/10W
R8401	1-216-837-11	METAL SHIP	22K	5%	1/10W
R8402	1-216-809-11	METAL SHIP	100	5%	1/10W
R8403	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8404	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8405	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8406	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8407	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8408	1-218-831-11	METAL SHIP	220	0.5%	1/10W
R8409	1-216-864-11	SHORT CHIP	0		
R8410	1-216-864-11	SHORT CHIP	0		
R8411	1-216-838-11	METAL SHIP	27K	5%	1/10W
R8412	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8413	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8414	1-218-706-11	METAL CHIP	3.9K	0.5%	1/10W
R8415	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8416	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8417	1-216-809-11	METAL SHIP	100	5%	1/10W
R8418	1-216-809-11	METAL SHIP	100	5%	1/10W
R8419	1-216-805-11	METAL SHIP	47	5%	1/10W
R8420	1-216-805-11	METAL SHIP	47	5%	1/10W
R8421	1-216-864-11	SHORT CHIP	0		
R8422	1-216-864-11	SHORT CHIP	0		
R8423	1-216-864-11	SHORT CHIP	0		
R8424	1-216-838-11	METAL SHIP	27K	5%	1/10W
R8425	1-218-887-11	METAL SHIP	47K	0.5%	1/10W
R8426	1-218-706-11	METAL CHIP	3.9K	0.5%	1/10W
R8427	1-216-864-11	SHORT CHIP	0		
R8428	1-216-809-11	METAL SHIP	100	5%	1/10W
R8429	1-218-845-11	METAL SHIP	820	5%	1/10W
R8430	1-216-810-11	METAL SHIP	120	5%	1/10W
R8436	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8437	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8438	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8439	1-216-809-11	METAL SHIP	100	5%	1/10W
R8440	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8441	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8442	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8443	1-216-809-11	METAL SHIP	100	5%	1/10W
R8444	1-216-809-11	METAL SHIP	100	5%	1/10W
R8446	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8447	1-216-809-11	METAL SHIP	100	5%	1/10W
R8448	1-216-809-11	METAL SHIP	100	5%	1/10W
R8449	1-216-809-11	METAL SHIP	100	5%	1/10W
R8456	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8457	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8458	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8459	1-216-809-11	METAL SHIP	100	5%	1/10W
R8460	1-216-809-11	METAL SHIP	100	5%	1/10W
R8461	1-216-809-11	METAL SHIP	100	5%	1/10W
R8464	1-216-809-11	METAL SHIP	100	5%	1/10W
R8465	1-216-809-11	METAL SHIP	100	5%	1/10W
R8466	1-216-809-11	METAL SHIP	100	5%	1/10W
R8467	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8468	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8469	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8470	1-218-867-11	METAL SHIP	6.8K	0.5%	1/10W
R8471	1-216-809-11	METAL SHIP	100	5%	1/10W
R8473	1-216-809-11	METAL SHIP	100	5%	1/10W
R8478	1-218-887-11	METAL SHIP	47K	0.5%	1/10W
R8479	1-216-845-11	METAL SHIP	100K	5%	1/10W
R8480	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8481	1-216-844-11	METAL SHIP	82K	5%	1/10W
R8482	1-218-887-11	METAL SHIP	47K	0.5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8484	1-218-843-11	METAL SHIP	680	0.5%	1/10W
R8485	1-218-835-11	METAL SHIP	330	0.5%	1/10W
R8486	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8487	1-218-843-11	METAL SHIP	680	0.5%	1/10W
R8488	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8489	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8490	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8491	1-216-809-11	METAL SHIP	100	5%	1/10W
R8492	1-218-835-11	METAL SHIP	330	0.5%	1/10W
R8493	1-216-837-11	METAL SHIP	22K	5%	1/10W
R8494	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8495	1-216-837-11	METAL SHIP	22K	5%	1/10W
R8496	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8497	1-216-809-11	METAL SHIP	100	5%	1/10W
R8498	1-218-835-11	METAL SHIP	330	0.5%	1/10W
R8499	1-216-837-11	METAL SHIP	22K	5%	1/10W
R8500	1-216-809-11	METAL SHIP	100	5%	1/10W
R8501	1-216-837-11	METAL SHIP	22K	5%	1/10W
R8502	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8504	1-216-809-11	METAL SHIP	100	5%	1/10W
R8505	1-216-809-11	METAL SHIP	100	5%	1/10W
R8506	1-216-809-11	METAL SHIP	100	5%	1/10W
R8507	1-216-809-11	METAL SHIP	100	5%	1/10W
R8508	1-216-809-11	METAL SHIP	100	5%	1/10W
R8509	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8510	1-216-809-11	METAL SHIP	100	5%	1/10W
R8511	1-218-839-11	METAL SHIP	470	5%	1/10W
R8512	1-216-805-11	METAL SHIP	47	5%	1/10W
R8513	1-218-839-11	METAL SHIP	470	5%	1/10W
R8514	1-218-684-11	METAL CHIP	470	0.5%	1/10W
R8515	1-218-684-11	METAL CHIP	470	0.5%	1/10W
R8516	1-218-684-11	METAL CHIP	470	0.5%	1/10W
R8517	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8518	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8519	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8536	1-216-809-11	METAL SHIP	100	5%	1/10W
R8549	1-216-809-11	METAL SHIP	100	5%	1/10W
R8550	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8551	1-216-804-11	METAL SHIP	39	5%	1/10W
R8559	1-216-809-11	METAL SHIP	100	5%	1/10W
R8560	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8561	1-216-804-11	METAL SHIP	39	5%	1/10W
R8569	1-216-809-11	METAL SHIP	100	5%	1/10W
R8570	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8571	1-216-804-11	METAL SHIP	39	5%	1/10W
R8576	1-211-985-11	METAL SHIP	47	5%	1/10W
R8578	1-218-835-11	METAL SHIP	330	0.5%	1/10W
R8579	1-216-864-11	SHORT CHIP	0		
R8582	1-220-397-11	METAL SHIP	4.7M	5%	1/10W
R8583	1-220-397-11	METAL SHIP	4.7M	5%	1/10W
R8584	1-220-397-11	METAL SHIP	4.7M	5%	1/10W
R8585	1-220-397-11	METAL SHIP	4.7M	5%	1/10W
R8586	1-220-397-11	METAL SHIP	4.7M	5%	1/10W
R8704	1-218-903-11	METAL SHIP	220K	0.5%	1/10W
R8705	1-218-903-11	METAL SHIP	220K	5%	1/10W
R8706	1-211-990-11	METAL SHIP	75	0.5%	1/10W
R8707	1-211-990-11	METAL SHIP	75	0.5%	1/10W
R8708	1-211-990-11	METAL SHIP	75	0.5%	1/10W
R8709	1-216-864-11	SHORT CHIP	0		
R8710	1-216-864-11	SHORT CHIP	0		
R8711	1-216-864-11	SHORT CHIP	0		
R8712	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8713	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R8801	1-216-809-11	METAL SHIP	100	5%	1/10W
R8802	1-216-809-11	METAL SHIP	100	5%	1/10W
R8803	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8804	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8805	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8806	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8807	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8808	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8809	1-218-676-11	METAL CHIP	220	0.5%	1/10W
R8810	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8811	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8812	1-218-839-11	METAL SHIP	470	0.5%	1/10W
R8813	1-216-809-11	METAL SHIP	100	5%	1/10W
R8814	1-216-809-11	METAL SHIP	100	5%	1/10W
R8815	1-216-809-11	METAL SHIP	100	5%	1/10W
R8817	1-216-809-11	METAL SHIP	100	5%	1/10W
R8818	1-216-809-11	METAL SHIP	100	5%	1/10W
R8819	1-216-809-11	METAL SHIP	100	5%	1/10W
R8831	1-216-805-11	METAL SHIP	47	5%	1/10W
R8832	1-216-805-11	METAL SHIP	47	5%	1/10W
R8833	1-216-805-11	METAL SHIP	47	5%	1/10W
R8839	1-216-805-11	METAL SHIP	47	5%	1/10W
R8840	1-216-805-11	METAL SHIP	47	5%	1/10W
R8841	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8842	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R8843	1-216-864-11	SHORT CHIP	0		
R8844	1-216-809-11	METAL SHIP	100	5%	1/10W
R8846	1-216-809-11	METAL SHIP	100	5%	1/10W
R8847	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8848	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8858	1-216-809-11	METAL SHIP	100	5%	1/10W
R8859	1-216-809-11	METAL SHIP	100	5%	1/10W
R8860	1-216-809-11	METAL SHIP	100	5%	1/10W
R8870	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8871	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8872	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8879	1-216-821-11	METAL SHIP	1K	5%	1/10W
R8880	1-216-805-11	METAL SHIP	47	5%	1/10W
R8881	1-216-809-11	METAL SHIP	100	5%	1/10W
R8882	1-216-805-11	METAL SHIP	47	5%	1/10W
R8884	1-216-851-11	METAL SHIP	330K	5%	1/10W
R8885	1-216-805-11	METAL SHIP	47	5%	1/10W
R8886	1-216-805-11	METAL SHIP	47	5%	1/10W
R8887	1-216-864-11	SHORT CHIP	0		
R8888	1-216-864-11	SHORT CHIP	0		
R8889	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R8890	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R8891	1-216-833-11	METAL SHIP	10K	5%	1/10W
R8892	1-218-831-11	METAL SHIP	220	5%	1/10W
R8893	1-216-845-11	METAL SHIP	100K	5%	1/10W

<VARISTOR>

VD8301	1-803-974-21	VARISTOR, CHIP
VD8302	1-803-974-21	VARISTOR, CHIP
VD8303	1-803-974-21	VARISTOR, CHIP
VD8304	1-803-974-21	VARISTOR, CHIP
VD8305	1-803-974-21	VARISTOR, CHIP
VD8306	1-803-974-21	VARISTOR, CHIP
VD8307	1-803-974-21	VARISTOR, CHIP

REF.NO.	PART NO.	DESCRIPTION			REMARK
VD8308	1-803-974-21	VARISTOR, CHIP			
		<CRYSTAL>			
X2001	1-767-606-11	VIBRATOR, CRYSTAL			
X8301	1-781-612-11	VIBRATOR, CRYSTAL (16.2MHz)			
X8302	1-781-612-11	VIBRATOR, CRYSTAL (16.2MHz)			
X8801	1-781-922-21	VIBRATOR, CERAMIC			
**********					
	*A-1300-962-A	A BOARD,COMPLETE			
		**********			
		(KP-FX53M61,KP-FX53M91)			
	*A-1300-963-A	A BOARD, COMPLETE			
		**********			
		(KP-FX43M61,KP-FX43M91)			
	*A-1302-040-A	A BOARD, COMPLETE (KP-FX53M31)			
		**********			
	*A-1302-041-A	A BOARD, COMPLETE (KP-FX43M31)			
		**********			
	*4-042-408-01	PIN, COATING LEAD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C001	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C002	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C003	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C004	1-126-947-11	ELECT	47UF	20.00%	16V
C005	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C006	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C007	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C008	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C009	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C010	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C011	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C012	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C014	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C016	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C017	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C018	1-126-935-11	ELECT	470UF	20.00%	10V
C020	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C022	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C024	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C025	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C026	1-128-551-11	ELECT	22UF	20.00%	25V
C027	1-126-964-11	ELECT	10UF	20.00%	50V
C028	1-126-933-11	ELECT	100UF	20.00%	16V
C029	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C030	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C031	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C032	1-115-467-11	CERAMIC CHIP	0.22UF	10.00%	10V
C033	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C034	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C035	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C036	1-128-551-11	ELECT	22UF	20.00%	25V
C043	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C103	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C104	1-126-933-11	ELECT	100UF	20.00%	16V
C107	1-162-962-11	CERAMIC CHIP	470PF	10.00%	50V
C108	1-126-933-11	ELECT	100UF	20.00%	16V
C109	1-162-962-11	CERAMIC CHIP	470PF	10.00%	50V
C110	1-162-962-11	CERAMIC CHIP	470PF	10.00%	50V
C111	1-162-962-11	CERAMIC CHIP	470PF	10.00%	50V
C112	1-126-933-11	ELECT	100UF	20.00%	16V
C113	1-126-947-11	ELECT	47UF	20.00%	16V
C114	1-126-967-11	ELECT	47UF	20.00%	50V
C176	1-126-933-11	ELECT	100UF	20.00%	16V
C178	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C301	1-126-767-11	ELECT	1000UF	20.00%	16V
C326	1-126-964-11	ELECT	10UF	20.00%	50V
C1214	1-126-055-11	ELECT	470UF	20.00%	50V
C1215	1-126-055-11	ELECT	470UF	20.00%	50V
C1216	1-126-943-11	ELECT	2200UF	20.00%	25V
C1217	1-126-943-11	ELECT	2200UF	20.00%	25V
C1219	1-126-961-11	ELECT	2.2UF	20.00%	50V
C1220	1-126-961-11	ELECT	2.2UF	20.00%	50V
C1221	1-126-933-11	ELECT	100UF	20.00%	16V
C1241	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1242	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1243	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1244	1-110-617-51	ELECT	2200UF	20.00%	50V
C1245	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1246	1-107-823-11	CERAMIC CHIP	0.47UF	10.00%	16V
C1247	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1248	1-110-617-51	ELECT	2200UF	20.00%	50V
C1249	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C1251	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C1252	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1253	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1255	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C1256	1-136-171-00	FILM	0.33UF	5.00%	50V
			(KP-FX43M31/M61/M91)		
C1256	1-137-194-81	FILM	0.47UF	5.00%	50V
			(KP-FX53M31/M61/M91)		
C1257	1-136-177-00	FILM	1UF	5.00%	50V
			(KP-FX43M31/M61/M91)		
C1258	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1259	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1260	1-107-823-11	CERAMIC CHIP	0.47UF	10.00%	16V
C1262	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C1263	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C1264	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1265	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1267	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C1268	1-136-171-00	FILM	0.33UF	5.00%	50V
			(KP-FX43M31/M61/M91)		
C1268	1-137-194-81	FILM	0.47UF	5.00%	50V
			(KP-FX53M31/M61/M91)		
C1269	1-136-177-00	FILM	1UF	5.00%	50V
			(KP-FX43M31/M61/M91)		
C1270	1-163-007-11	CERAMIC CHIP	680PF	10.00%	50V
C1271	1-163-007-11	CERAMIC CHIP	680PF	10.00%	50V
C1272	1-126-941-11	ELECT	470UF	20.00%	25V
C1273	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1274	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1275	1-163-007-11	CERAMIC CHIP	680PF	10.00%	50V
C1276	1-163-007-11	CERAMIC CHIP	680PF	10.00%	50V
C1277	1-164-690-91	CERAMIC CHIP	0.0022UF	5.00%	50V
C1279	1-164-690-91	CERAMIC CHIP	0.0022UF	5.00%	50V
C1281	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1282	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1283	1-164-690-91	CERAMIC CHIP	0.0022UF	5.00%	50V
C1284	1-164-690-91	CERAMIC CHIP	0.0022UF	5.00%	50V

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1297	1-136-171-00	FILM 0.33UF 5.00% 50V (KP-FX43M31/M61/M91)	
C1297	1-137-194-11	FILM 0.56UF 5.00% 50V (KP-FX53M31/M61/M91)	
C1298	1-136-171-00	FILM 0.33UF 5.00% 50V (KP-FX43M31/M61/M91)	
C1298	1-137-195-11	FILM 0.53UF 5.00% 50V (KP-FX53M31/M61/M91)	
C1301	1-126-933-11	ELECT 100UF 20.00% 16V	
C1302	1-115-339-11	CERAMIC CHIP 0.1UF 10.00% 50V	
C1303	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
C2200	1-126-964-11	ELECT 10UF 20.00% 50V	
C2201	1-126-964-11	ELECT 10UF 20.00% 50V	
C2202	1-126-964-11	ELECT 10UF 20.00% 50V	
C2203	1-126-963-11	ELECT 4.7UF 20.00% 50V	
C2204	1-125-838-11	CERAMIC CHIP 2.2UF 10% 6.3V	
C2205	1-125-838-11	CERAMIC CHIP 2.2UF 10% 6.3V	
C2206	1-126-964-11	ELECT 10UF 20.00% 50V	
C2209	1-126-968-11	ELECT 100UF 20.00% 50V	
C2600	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2601	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2602	1-126-933-11	ELECT 100UF 20.00% 16V	
C2603	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2604	1-126-933-11	ELECT 100UF 20.00% 16V	
C2605	1-126-935-11	ELECT 470UF 20.00% 16V	
C2606	1-110-563-11	CERAMIC CHIP 0.068UF 10.00% 16V	
C2608	1-126-926-11	ELECT 1000UF 20.00% 10V	
C2609	1-126-935-11	ELECT 470UF 20.00% 10V	
C2610	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2611	1-126-934-11	ELECT 220UF 20.00% 10V	
C2612	1-126-933-11	ELECT 100UF 20.00% 16V	
C2613	1-126-933-11	ELECT 100UF 20.00% 16V	
C2614	1-126-935-11	ELECT 470UF 20.00% 16V	
C2615	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2616	1-126-933-11	ELECT 100UF 20.00% 16V	
C2617	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2618	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2619	1-126-935-11	ELECT 470UF 20.00% 16V	
C2620	1-128-953-31	ELECT 470UF 20% 25V	
C2622	1-110-563-11	CERAMIC CHIP 0.068UF 10.00% 16V	
C2623	1-126-926-11	ELECT 1000UF 20.00% 10V	
C2625	1-126-935-11	ELECT 470UF 20.00% 16V	
C2633	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C2634	1-126-933-11	ELECT 100UF 20.00% 16V	
C2635	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C3330	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C3331	1-126-933-11	ELECT 100UF 20.00% 16V	
C3336	1-126-933-11	ELECT 100UF 20.00% 16V	
C3338	1-162-962-11	CERAMIC CHIP 470PF 10.00% 50V	
C3350	1-162-962-11	CERAMIC CHIP 470PF 10.00% 50V	
C3351	1-162-962-11	CERAMIC CHIP 470PF 10.00% 50V	
C3352	1-162-962-11	CERAMIC CHIP 470PF 10.00% 50V	
C3353	1-126-933-11	ELECT 100UF 20.00% 16V	
C3354	1-126-967-11	ELECT 47UF 20.00% 50V	
C3355	1-126-947-11	ELECT 47UF 20.00% 16V	

<CONNECTOR>

CN1100	*1-816-598-11	PIN, CONNECTOR 12P
CN1101	*1-564-510-11	PLUG, CONNECTOR 7P
CN1108	*1-785-304-11	CONNECTOR, DIN (RECEPTACLE) 64
CN1112	1-695-915-11	TAB (CONTACT)
CN1113	1-695-915-11	TAB (CONTACT)
CN1116	1-695-915-11	TAB (CONTACT)
CN1117	*1-564-506-11	PLUG, CONNECTOR 3P
CN1118	*1-774-813-11	CONNECTOR, BOARD TO BOARD 7P
CN1120	1-793-493-11	CONNECTOR, BOARD TO BOARD 20P
CN1121	*1-774-813-11	CONNECTOR, BOARD TO BOARD 7P
CN1140	1-793-495-11	CONNECTOR, BOARD TO BOARD 50P
CN1160	*1-764-333-11	PLUG, CONNECTOR 10P
CN1161	*1-564-511-11	PLUG, CONNECTOR 8P
CN1162	*1-764-333-11	PLUG, CONNECTOR 10P
CN1162	*1-764-333-11	PLUG, CONNECTOR 10P
CN1164	*1-564-510-11	PLUG, CONNECTOR 7P
CN1180	*1-785-304-11	CONNECTOR, DIN (RECEPTACLE) 64
CN1190	*1-564-510-11	PLUG, CONNECTOR 7P
CN1195	*1-564-506-11	PLUG, CONNECTOR 3P
CN1201	*1-564-509-11	PLUG, CONNECTOR 6P
CN1293	*1-764-333-11	PLUG, CONNECTOR 10P

<DIODE>

D001	8-719-081-97	DIODE MMDL914T1
D002	8-719-058-24	DIODE RB501V-40TE-17
D003	8-719-081-97	DIODE MMDL914T1
D007	8-719-158-18	DIODE RD5.6SB3-T1
D009	8-719-158-18	DIODE RD5.6SB3-T1
D011	8-719-510-02	DIODE D1NS4-TR
D013	8-719-158-18	DIODE RD5.6SB3-T1
D014	8-719-110-72	DIODE RD30ES-T1B2
D100	8-719-081-97	DIODE MMDL914T1
D301	8-719-081-97	DIODE MMDL914T1
D302	8-719-081-97	DIODE MMDL914T1
D317	8-719-081-97	DIODE MMDL914T1
D1205	8-719-158-35	DIODE RD9.1SB-T1
D1208	8-719-081-97	DIODE MMDL914T1
D1209	8-719-081-97	DIODE MMDL914T1
D1300	8-719-158-18	DIODE RD5.6SB3-T1
D1301	8-719-083-66	DIODE UDZSTE-1718B
D2200	8-719-158-35	DIODE RD9.1SB-T1
D2201	8-719-158-35	DIODE RD9.1SB-T1
D2600	8-719-500-70	DIODE D5S4M
D2601	8-719-500-70	DIODE D5S4M

<FERRITE BEAD>

FB001	1-414-233-22	FERRITE	0UH
FB002	1-414-233-22	FERRITE	0UH
FB003	1-414-233-22	FERRITE	0UH
FB004	1-414-233-22	FERRITE	0UH
FB005	1-414-233-22	FERRITE	0UH
FB006	1-414-233-22	FERRITE	0UH
FB007	1-414-233-22	FERRITE	0UH
FB008	1-414-233-22	FERRITE	0UH
FB127	1-414-228-11	FERRITE	0UH
FB128	1-414-228-11	FERRITE	0UH
FB1205	1-410-397-21	FERRITE	1.1UH
FB1206	1-410-397-21	FERRITE	1.1UH
FB1207	1-410-397-21	FERRITE	1.1UH
FB1208	1-410-397-21	FERRITE	1.1UH
FB1300	1-216-295-91	SHORT CHIP	0

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<FILTER>	
FL001	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC001	8-752-933-16	IC CXP961048-006Q	
IC002	6-702-474-01	IC MM1482BFBE	
IC003	8-759-682-41	IC M24C32-WMN6T(A)	
IC005	8-759-450-47	IC BA05T	
IC100	8-759-042-02	IC S-80743AL-A7-T1	
IC1203	8-759-553-45	IC TDA7481	
IC1204	8-759-553-45	IC TDA7481	
IC2200	8-759-745-64	IC NJM4560M-TE2	
IC2600	8-759-394-36	IC BA09T	
IC2601	8-759-640-19	IC PQ1CG2032FZ	
IC2602	6-700-898-01	IC PQ05RD21	
IC2602	8-759-513-71	IC PQ05RF21	
IC2603	8-759-640-19	IC PQ1CG2032FZ	
IC2604	8-759-644-37	IC PQ5EV3	
IC2605	8-759-394-36	IC BA09T	
IC2607	8-759-394-36	IC BA09T	
		<CHIP CONDUCTOR>	
JR101	1-216-864-11	SHORT CHIP 0	
JR102	1-216-864-11	SHORT CHIP 0	
JR107	1-216-864-11	SHORT CHIP 0	
JR113	1-216-864-11	SHORT CHIP 0	
JR1111	1-216-864-11	SHORT CHIP 0	
JR1112	1-216-864-11	SHORT CHIP 0	
JR1301	1-216-864-11	SHORT CHIP 0	
		<COIL>	
L001	1-414-856-11	INDUCTOR 10UH	
L002	1-414-856-11	INDUCTOR 10UH	
L101	1-414-856-11	INDUCTOR 10UH	
L102	1-414-856-11	INDUCTOR 10UH	
L103	1-414-856-11	INDUCTOR 10UH	
L104	1-414-856-11	INDUCTOR 10UH	
L105	1-414-856-11	INDUCTOR 10UH	
L112	1-469-555-21	INDUCTOR 10UH	
L1201	1-414-187-11	INDUCTOR 47UH	
L1202	1-406-977-21	INDUCTOR 100UH	
L1203	1-406-977-21	INDUCTOR 100UH	
L1204	1-416-857-11	INDUCTOR 65UH	
L1205	1-416-857-11	INDUCTOR 65UH	
L1300	1-414-856-11	INDUCTOR 10UH	
L1301	1-414-856-11	INDUCTOR 10UH	
L2600	1-419-249-11	INDUCTOR 15UH	
L2601	1-419-249-11	INDUCTOR 15UH	
L2602	1-412-525-31	INDUCTOR 10UH	
L2603	1-412-525-31	INDUCTOR 10UH	
L2604	1-412-525-31	INDUCTOR 10UH	
L2605	1-419-249-11	INDUCTOR 15UH	
L2606	1-419-249-11	INDUCTOR 15UH	
L2607	1-412-525-31	INDUCTOR 10UH	
L3302	1-414-856-11	INDUCTOR 10UH	
L3303	1-414-856-11	INDUCTOR 10UH	
L3304	1-414-856-11	INDUCTOR 10UH	
L3305	1-414-856-11	INDUCTOR 10UH	
L3306	1-414-856-11	INDUCTOR 10UH	
		<IC LINK>	
PS1201	⚠1-532-686-21	LINK, IC 2.7A/50V	
PS1202	⚠1-532-686-21	LINK, IC 2.7A/50V	
PS1203	⚠1-532-686-21	LINK, IC 2.7A/50V	
PS1204	⚠1-532-686-21	LINK, IC 2.7A/50V	
		<TRANSISTOR>	
Q001	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q002	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q003	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q004	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q005	8-729-907-00	TRANSISTOR DTC114EUA-T106	
Q006	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q007	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q008	8-729-907-00	TRANSISTOR DTC114EUA-T106	
Q009	8-729-028-23	TRANSISTOR 2SJ344(TE85L)	
Q101	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q105	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q301	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q313	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q1205	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1206	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q1207	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q1209	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q1210	8-729-905-35	TRANSISTOR 2SC4081T106R	
Q1211	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q2200	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2201	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2603	8-729-907-00	TRANSISTOR DTC114EUA-T106	
Q2604	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
Q3300	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR	
		<RESISTOR>	
R001	1-218-831-11	METAL SHIP 220 5% 1/10W	
R002	1-218-831-11	METAL SHIP 220 5% 1/10W	
R003	1-216-829-11	METAL SHIP 4.7K 5% 1/10W	
R004	1-216-829-11	METAL SHIP 4.7K 5% 1/10W	
R005	1-216-835-11	METAL SHIP 15K 5% 1/10W	
R006	1-216-835-11	METAL SHIP 15K 5% 1/10W	
R007	1-218-831-11	METAL SHIP 220 5% 1/10W	
R009	1-216-809-11	METAL SHIP 100 5% 1/10W	
R010	1-216-809-11	METAL SHIP 100 5% 1/10W	
R012	1-216-829-11	METAL SHIP 4.7K 5% 1/10W	
R013	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R014	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R015	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R016	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R017	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R018	1-218-831-11	METAL SHIP 220 5% 1/10W	
R019	1-216-814-11	METAL SHIP 270 5% 1/10W	
R020	1-218-831-11	METAL SHIP 220 5% 1/10W	
R021	1-216-809-11	METAL SHIP 100 5% 1/10W	
R022	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R023	1-216-821-11	METAL SHIP 1K 5% 1/10W	
R024	1-218-841-11	METAL SHIP 560 5% 1/10W	
R025	1-216-811-11	METAL SHIP 150 5% 1/10W	
R026	1-216-821-11	METAL SHIP 1K 5% 1/10W	

A

REF.NO.	PART NO.	DESCRIPTION			REMARK
R027	1-216-827-11	METAL SHIP	3.3K	5%	1/10W
R028	1-216-827-11	METAL SHIP	3.3K	5%	1/10W
R029	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R030	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R031	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R032	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R033	1-216-809-11	METAL SHIP	100	5%	1/10W
R034	1-218-831-11	METAL SHIP	220	5%	1/10W
R035	1-218-831-11	METAL SHIP	220	5%	1/10W
R036	1-216-809-11	METAL SHIP	100	5%	1/10W
R038	1-216-809-11	METAL SHIP	100	5%	1/10W
R039	1-216-809-11	METAL SHIP	100	5%	1/10W
R040	1-216-821-11	METAL SHIP	1K	5%	1/10W
R041	1-216-809-11	METAL SHIP	100	5%	1/10W
R042	1-216-821-11	METAL SHIP	1K	5%	1/10W
R043	1-216-809-11	METAL SHIP	100	5%	1/10W
R044	1-216-809-11	METAL SHIP	100	5%	1/10W
R045	1-216-821-11	METAL SHIP	1K	5%	1/10W
R046	1-218-831-11	METAL SHIP	220	5%	1/10W
R047	1-216-809-11	METAL SHIP	100	5%	1/10W
R048	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R049	1-218-831-11	METAL SHIP	220	5%	1/10W
R050	1-216-809-11	METAL SHIP	100	5%	1/10W
R052	1-216-809-11	METAL SHIP	100	5%	1/10W
R054	1-218-831-11	METAL SHIP	220	5%	1/10W
R055	1-218-831-11	METAL SHIP	220	5%	1/10W
R056	1-216-864-11	SHORT CHIP	0		
R057	1-216-864-11	SHORT CHIP	0		
R058	1-218-831-11	METAL SHIP	220	5%	1/10W
R059	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R060	1-218-831-11	METAL SHIP	220	5%	1/10W
R061	1-218-831-11	METAL SHIP	220	5%	1/10W
R062	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R063	1-218-831-11	METAL SHIP	220	5%	1/10W
R064	1-216-821-11	METAL SHIP	1K	5%	1/10W
R065	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R067	1-216-827-11	METAL SHIP	3.3K	5%	1/10W
R068	1-216-821-11	METAL SHIP	1K	5%	1/10W
R070	1-218-831-11	METAL SHIP	220	5%	1/10W
R071	1-216-821-11	METAL SHIP	1K	5%	1/10W
R072	1-218-831-11	METAL SHIP	220	5%	1/10W
R073	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R074	1-218-831-11	METAL SHIP	220	5%	1/10W
R077	1-216-821-11	METAL SHIP	1K	5%	1/10W
R078	1-218-831-11	METAL SHIP	220	5%	1/10W
R079	1-218-831-11	METAL SHIP	220	5%	1/10W
R080	1-216-821-11	METAL SHIP	1K	5%	1/10W
R082	1-216-821-11	METAL SHIP	1K	5%	1/10W
R083	1-218-831-11	METAL SHIP	220	5%	1/10W
R084	1-216-833-11	METAL SHIP	10K	5%	1/10W
R085	1-216-833-11	METAL SHIP	10K	5%	1/10W
R087	1-216-864-11	SHORT CHIP	0		
R088	1-216-864-11	SHORT CHIP	0		
R089	1-216-809-11	METAL SHIP	100	5%	1/10W
R090	1-216-809-11	METAL SHIP	100	5%	1/10W
R091	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R092	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R093	1-216-821-11	METAL SHIP	1K	5%	1/10W
R094	1-216-821-11	METAL SHIP	1K	5%	1/10W
R095	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R096	1-216-833-11	METAL SHIP	10K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R097	1-218-831-11	METAL SHIP	220	5%	1/10W
R098	1-216-864-11	SHORT CHIP	0		
R099	1-216-809-11	METAL SHIP	100	5%	1/10W
R099	1-216-809-11	METAL SHIP	100	5%	1/10W
R110	1-216-809-11	METAL SHIP	100	5%	1/10W
R102	1-216-818-11	METAL SHIP	560	5%	1/10W
R105	1-216-864-11	SHORT CHIP	0		
R109	1-218-839-11	METAL SHIP	470	5%	1/10W
R111	1-216-809-11	METAL SHIP	100	5%	1/10W
R112	1-216-809-11	METAL SHIP	100	5%	1/10W
R113	1-216-864-11	SHORT CHIP	0		
R116	1-216-805-11	METAL SHIP	47	5%	1/10W
R117	1-216-805-11	METAL SHIP	47	5%	1/10W
R118	1-216-809-11	METAL SHIP	100	5%	1/10W
R119	1-216-809-11	METAL SHIP	100	5%	1/10W
R121	1-216-809-11	METAL SHIP	100	5%	1/10W
R122	1-216-809-11	METAL SHIP	100	5%	1/10W
R123	1-216-809-11	METAL SHIP	100	5%	1/10W
R124	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R125	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R179	1-216-809-11	METAL SHIP	100	5%	1/10W
R180	1-216-812-11	METAL SHIP	180	5%	1/10W
R181	1-218-831-11	METAL SHIP	220	5%	1/10W
R183	1-216-809-11	METAL SHIP	100	5%	1/10W
R184	1-218-903-11	METAL SHIP	220K	5%	1/10W
R185	1-216-857-11	METAL SHIP	1M	5%	1/10W
R301	1-218-911-11	METAL SHIP	470K	5%	1/10W
R302	1-218-887-11	METAL SHIP	47K	5%	1/10W
R303	1-218-887-11	METAL SHIP	47K	5%	1/10W
R1205	1-218-887-11	METAL SHIP	47K	5%	1/10W
R1206	1-218-887-11	METAL SHIP	47K	5%	1/10W
R1207	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1208	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1236	1-208-808-11	METAL CHIP	12K	0.5%	1/10W
R1237	1-216-839-11	METAL SHIP	33K	5%	1/10W
R1238	1-216-837-11	METAL SHIP	22K	5%	1/10W
R1239	1-218-865-11	METAL SHIP	5.6K	5%	1/10W
R1240	1-216-839-11	METAL SHIP	33K	5%	1/10W
R1244	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R1246	1-208-808-11	METAL CHIP	12K	0.5%	1/10W
R1247	1-216-839-11	METAL SHIP	33K	5%	1/10W
R1252	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R1260	1-216-037-00	METAL SHIP	330	5%	1/10W
R1261	1-216-037-00	METAL SHIP	330	5%	1/10W
R1264	1-218-839-11	METAL SHIP	470	5%	1/10W
R1265	1-218-839-11	METAL SHIP	470	5%	1/10W
R1266	1-216-821-11	METAL SHIP	1K	5%	1/10W
R1267	1-216-835-11	METAL SHIP	15K	5%	1/10W
R1269	1-216-809-11	METAL SHIP	100	5%	1/10W
R1270	1-218-887-11	METAL SHIP	47K	5%	1/10W
R1271	1-216-821-11	METAL SHIP	1K	5%	1/10W
R1272	1-216-821-11	METAL SHIP	1K	5%	1/10W
R1273	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R1275	1-216-837-11	METAL SHIP	22K	5%	1/10W
R1276	1-216-837-11	METAL SHIP	22K	5%	1/10W
R1277	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1280	1-216-037-00	METAL SHIP	330	5%	1/10W
R1281	1-216-037-00	METAL SHIP	330	5%	1/10W
R1286	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1287	1-216-037-00	METAL SHIP	330	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1288	1-216-037-00	METAL SHIP	330	5%	1/10W
R1289	1-216-037-00	METAL SHIP	330	5%	1/10W
R1290	1-216-037-00	METAL SHIP	330	5%	1/10W
R1300	1-218-831-11	METAL SHIP	220	5%	1/10W
R1301	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1302	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1303	1-216-821-11	METAL SHIP	1K	5%	1/10W
R1304	1-218-839-11	METAL SHIP	470	5%	1/10W
R2200	1-211-989-11	METAL SHIP	68	5%	1/10W
R2201	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2202	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2203	1-211-989-11	METAL SHIP	68	5%	1/10W
R2204	1-216-833-11	METAL SHIP	10K	5%	1/10W
R2205	1-216-845-11	METAL SHIP	100K	5%	1/10W
R2206	1-216-855-11	METAL SHIP	680K	5%	1/10W
R2207	1-216-828-11	METAL SHIP	3.9K	5%	1/10W
R2208	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2209	1-216-855-11	METAL SHIP	680K	5%	1/10W
R2210	1-218-887-11	METAL SHIP	47K	5%	1/10W
R2211	1-216-845-11	METAL SHIP	100K	5%	1/10W
R2212	1-216-833-11	METAL SHIP	10K	5%	1/10W
R2213	1-218-887-11	METAL SHIP	47K	5%	1/10W
R2214	1-218-887-11	METAL SHIP	47K	5%	1/10W
R2215	1-218-887-11	METAL SHIP	47K	5%	1/10W
R2216	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2217	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2600	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2601	1-218-851-11	METAL CHIP	1.5K	0.5%	1/10W
R2602	1-218-846-11	METAL CHIP	910	0.5%	1/10W
R2603	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R2604	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R2605	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R2606	1-218-861-11	METAL CHIP	3.9K	0.5%	1/10W
R2607	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R2608	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R3212	1-216-864-11	SHORT CHIP	0		
R3213	1-216-864-11	SHORT CHIP	0		
R3214	1-216-864-11	SHORT CHIP	0		
R3300	1-218-841-11	METAL SHIP	560	5%	1/10W
R3320	1-216-833-11	METAL SHIP	10K	5%	1/10W
R3323	1-216-809-11	METAL SHIP	100	5%	1/10W
R3334	1-216-809-11	METAL SHIP	100	5%	1/10W
R3362	1-216-809-11	METAL SHIP	100	5%	1/10W
R3374	1-216-864-11	SHORT CHIP	0		

<VARIABLE RESISTOR>

RV3300	1-241-761-11	RES, ADJ, CARBON 1K

<TUNER>

TU101	8-598-452-20	TUNER, FSS BTF-WG442
TU3301	8-598-450-10	TUNER, FSS BTF-LG434

<CRYSTAL>

X001	1-781-282-51	VIBRATOR, CERAMIC (4MHz)

****

* A-1404-607-A E BOARD, MOUNT
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C4300	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4302	1-126-933-11	ELECT	100UF	20.00%	16V
C4303	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4304	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C4305	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4306	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C4307	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4308	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4309	1-126-933-11	ELECT	100UF	20.00%	16V
C4310	1-164-156-11	CERAMIC CHIP	0.1UF	25V	
C4311	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C4312	1-126-933-11	ELECT	100UF	20.00%	16V
C4313	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C4315	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4316	1-126-933-11	ELECT	100UF	20.00%	16V
C4317	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4318	1-126-933-11	ELECT	100UF	20.00%	16V
C4319	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4320	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4321	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4322	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4325	1-162-923-11	CERAMIC CHIP	47PF	5.00%	50V
C4326	1-126-962-11	ELECT	3.3UF	20.00%	50V
C4327	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4328	1-162-923-11	CERAMIC CHIP	47PF	5.00%	50V
C4329	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4330	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4331	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4332	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4333	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4334	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4335	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4337	1-126-933-11	ELECT	100UF	20.00%	16V
C4338	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4339	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4340	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4341	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4342	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4343	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4344	1-126-933-11	ELECT	100UF	20.00%	16V
C4345	1-126-933-11	ELECT	100UF	20.00%	16V
C4348	1-126-933-11	ELECT	100UF	20.00%	16V
C4351	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C4352	1-110-563-11	CERAMIC CHIP	0.068UF	10.00%	16V
C4357	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C4358	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4359	1-126-933-11	ELECT	100UF	20.00%	16V
C4360	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4361	1-126-933-11	ELECT	100UF	20.00%	16V
C4362	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4363	1-126-933-11	ELECT	100UF	20.00%	16V
C4364	1-126-933-11	ELECT	100UF	20.00%	16V

E

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN4300	*1-564-522-11	PLUG, CONNECTOR 7P			
CN4301	*1-793-498-11	CONNECTOR BOARD TO BOARD 50P			
CN4302	*1-564-506-11	PLUG, CONNECTOR 3P			
CN4303	*1-564-506-11	PLUG, CONNECTOR 3P			
CN4304	*1-564-506-11	PLUG, CONNECTOR 3P			
CN4305	*1-564-526-11	PLUG, CONNECTOR 11P			
		<DIODE>			
D4300	8-719-081-97	DIODE MMDL914T1			
D4301	8-719-081-97	DIODE MMDL914T1			
D4302	8-719-081-97	DIODE MMDL914T1			
D4304	8-719-025-31	DIODE 02CZ5.6-TE85L			
D4305	8-719-081-97	DIODE MMDL914T1			
D4312	8-719-081-97	DIODE MMDL914T1			
		<IC>			
IC4300	8-752-102-68	IC CXA2170Q			
IC4301	8-759-576-72	IC LF50CDT-TR			
		<COIL>			
L4300	1-469-555-21	INDUCTOR	10UH		
L4301	1-469-555-21	INDUCTOR	10UH		
L4302	1-469-555-21	INDUCTOR	10UH		
L4303	1-469-555-21	INDUCTOR	10UH		
L4304	1-469-555-21	INDUCTOR	10UH		
L4305	1-469-555-21	INDUCTOR	10UH		
L4306	1-469-555-21	INDUCTOR	10UH		
L4308	1-469-555-21	INDUCTOR	10UH		
		<TRANSISTOR>			
Q4300	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4301	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4302	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4303	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4305	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4306	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
Q4307	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q4309	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q4311	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q4312	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR			
Q4313	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
Q4314	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4316	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
Q4317	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q4319	8-729-122-63	TRANSISTOR 2SA1226-T1E4			
		<RESISTOR>			
R4300	1-216-809-11	METAL SHIP	100	5%	1/10W
R4301	1-216-809-11	METAL SHIP	100	5%	1/10W
R4302	1-216-809-11	METAL SHIP	100	5%	1/10W
R4303	1-216-864-11	SHORT CHIP	0		
R4304	1-216-864-11	SHORT CHIP	0		
R4305	1-216-864-11	SHORT CHIP	0		
R4306	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4308	1-216-864-11	SHORT CHIP	0		
R4309	1-216-809-11	METAL SHIP	100	5%	1/10W
R4310	1-216-809-11	METAL SHIP	100	5%	1/10W
R4312	1-218-716-11	METAL CHIP	10K	0.5%	1/10W
R4313	1-216-809-11	METAL SHIP	100	5%	1/10W
R4314	1-216-845-11	METAL SHIP	100K	5%	1/10W
R4315	1-216-832-11	METAL SHIP	8.2K	5%	1/10W
R4317	1-216-809-11	METAL SHIP	100	5%	1/10W
R4318	1-216-809-11	METAL SHIP	100	5%	1/10W
R4319	1-216-809-11	METAL SHIP	100	5%	1/10W
R4320	1-216-809-11	METAL SHIP	100	5%	1/10W
R4321	1-216-809-11	METAL SHIP	100	5%	1/10W
R4322	1-218-841-11	METAL SHIP	560	5%	1/10W
R4323	1-216-809-11	METAL SHIP	100	5%	1/10W
R4324	1-216-809-11	METAL SHIP	100	5%	1/10W
R4325	1-216-805-11	METAL SHIP	47	5%	1/10W
R4326	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R4327	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4328	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R4329	1-216-809-11	METAL SHIP	100	5%	1/10W
R4330	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R4331	1-216-809-11	METAL SHIP	100	5%	1/10W
R4332	1-216-826-11	METAL SHIP	2.7K	5%	1/10W
R4333	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R4334	1-216-827-11	METAL SHIP	3.3K	5%	1/10W
R4335	1-216-809-11	METAL SHIP	100	5%	1/10W
R4336	1-216-826-11	METAL SHIP	2.7K	5%	1/10W
R4337	1-218-867-11	METAL SHIP	6.8K	5%	1/10W
R4338	1-216-809-11	METAL SHIP	100	5%	1/10W
R4339	1-218-708-11	METAL CHIP	4.7K	0.5%	1/10W
R4340	1-216-809-11	METAL SHIP	100	5%	1/10W
R4341	1-216-833-11	METAL SHIP	10K	5%	1/10W
R4343	1-216-809-11	METAL SHIP	100	5%	1/10W
R4344	1-216-864-11	SHORT CHIP	0		
R4345	1-216-809-11	METAL SHIP	100	5%	1/10W
R4346	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4347	1-216-809-11	METAL SHIP	100	5%	1/10W
R4348	1-216-823-11	METAL SHIP	1.5K	5%	1/10W
R4349	1-218-831-11	METAL SHIP	220	5%	1/10W
R4350	1-216-809-11	METAL SHIP	100	5%	1/10W
R4351	1-216-863-11	METAL SHIP	3.3M	5%	1/10W
R4352	1-218-831-11	METAL SHIP	220	5%	1/10W
R4353	1-216-809-11	METAL SHIP	100	5%	1/10W
R4354	1-218-831-11	METAL SHIP	220	5%	1/10W
R4356	1-216-809-11	METAL SHIP	100	5%	1/10W
R4357	1-216-809-11	METAL SHIP	100	5%	1/10W
R4358	1-216-809-11	METAL SHIP	100	5%	1/10W
R4364	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4365	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4367	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4369	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4370	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4371	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4372	1-216-809-11	METAL SHIP	100	5%	1/10W
R4373	1-216-829-11	METAL SHIP	4.7K	5%	1/10W
R4376	1-216-833-11	METAL SHIP	10K	5%	1/10W
R4377	1-218-835-11	METAL SHIP	330	5%	1/10W
R4378	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4379	1-216-809-11	METAL SHIP	100	5%	1/10W
R4380	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4383	1-216-833-11	METAL SHIP	10K	5%	1/10W
R4384	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4385	1-216-825-11	METAL SHIP	2.2K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R4387	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4388	1-216-837-11	METAL SHIP	22K	5%	1/10W
R4389	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R4391	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4392	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4393	1-216-833-11	METAL SHIP	10K	5%	1/10W
R4394	1-216-809-11	METAL SHIP	100	5%	1/10W
R4395	1-216-833-11	METAL SHIP	10K	5%	1/10W
R4396	1-216-864-11	SHORT CHIP	0		
R4397	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4399	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4400	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4401	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R4404	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4405	1-216-821-11	METAL SHIP	1K	5%	1/10W
R4407	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4409	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4410	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4412	1-216-825-11	METAL SHIP	2.2K	5%	1/10W
R4413	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R4414	1-216-809-11	METAL SHIP	100	5%	1/10W
R4415	1-218-911-11	METAL SHIP	470K	5%	1/10W
R4419	1-216-803-11	METAL SHIP	33	5%	1/10W
R4420	1-216-803-11	METAL SHIP	33	5%	1/10W
R4421	1-216-803-11	METAL SHIP	33	5%	1/10W
R4496	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R4497	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R4498	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R4499	1-216-809-11	METAL SHIP	100	5%	1/10W

<CRYSTAL>

X4300 * 1-760-895-21 VIBRATOR, CERAMIC (4MHz)

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*A-1400-759-A SR BOARD, MOUNT
****

<CONNECTOR>

CN9901 1-564-506-11 PLUG, CONNECTOR 3P

<DIODE>

D9902 8-719-069-55 DIODE UDZSTE-175.6B

<BATTERY>

SB9901 1-756-295-11 BATTERY, SOLAR

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* A-1401-208-A H2 BOARD, MOUNT
****

<CAPACITOR>

C1800	1-124-589-11	ELECT	47UF	20.00%	16V
C1801	1-124-589-11	ELECT	47UF	20.00%	16V
C1802	1-164-315-11	CERAMIC CHIP	470PF	2.00%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK

<CONNECTOR>

CN1800 *1-564-525-11 PLUG, CONNECTOR 10P

<DIODE>

D1800	8-719-069-56	DIODE UDZSTE-176.2B
D1801	8-719-069-56	DIODE UDZSTE-176.2B
D1802	8-719-069-56	DIODE UDZSTE-176.2B
D1803	8-719-069-56	DIODE UDZSTE-176.2B
D1804	8-719-069-56	DIODE UDZSTE-176.2B
D1805	8-719-069-56	DIODE UDZSTE-176.2B
D1806	8-719-064-11	DIODE SPR-325MVW
D1807	8-719-050-84	DIODE RB441Q-40T-77
D1808	8-719-050-84	DIODE RB441Q-40T-77

<IC>

IC1800 8-742-211-20 HYB IC SBX3071-71

<TRANSISTOR>

Q1800	8-729-030-02	TRANSISTOR DTC144ESA-TP
Q1801	8-729-030-02	TRANSISTOR DTC144ESA-TP

<RESISTOR>

R1800	1-216-809-11	METAL SHIP	100	5%	1/10W
R1801	1-218-835-11	METAL SHIP	330	5%	1/10W
R1802	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1803	1-218-835-11	METAL SHIP	330	5%	1/10W
R1804	1-216-833-11	METAL SHIP	10K	5%	1/10W
R1805	1-216-805-11	METAL SHIP	47	5%	1/10W
R1806	1-216-809-11	METAL SHIP	100	5%	1/10W
R1807	1-216-809-11	METAL SHIP	100	5%	1/10W
R1808	1-216-809-11	METAL SHIP	100	5%	1/10W
R1809	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R1810	1-216-820-11	METAL SHIP	820	5%	1/10W
R1811	1-216-821-11	METAL SHIP	1K	5%	1/10W
R1812	1-218-849-11	METAL SHIP	1.2K	5%	1/10W
R1813	1-216-824-11	METAL SHIP	1.8K	5%	1/10W
R1814	1-216-827-11	METAL SHIP	3.3K	5%	1/10W
R1815	1-216-826-11	METAL SHIP	2.7K	5%	1/10W
R1816	1-216-832-11	METAL SHIP	8.2K	5%	1/10W

<SWITCH>

S1800	1-762-196-21	SWITCH, KEYBOARD (AUTO REG)
S1801	1-762-196-21	SWITCH, KEYBOARD (PRG +)
S1802	1-762-196-21	SWITCH, KEYBOARD (PRG -)
S1803	1-762-196-21	SWITCH, KEYBOARD (VOL +)
S1804	1-762-196-21	SWITCH, KEYBOARD (VOL -)
S1805	1-762-196-21	SWITCH, KEYBOARD (TV/VIDEO)
S1806	1-762-196-21	SWITCH, KEYBOARD (ENTER)
S1807	1-762-196-21	SWITCH, KEYBOARD (MENU)

H1 H3 V2

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
**********			
		* A-1401-207-A H1 BOARD, MOUNT	
		**********	
		<CONNECTOR>	
CN1700	*1-580-844-11	PIN, CONNECTOR (POWER)	
CN1701	*1-580-844-11	PIN, CONNECTOR (POWER)	
		<SWITCH>	
S1700 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
**********			
		* A-1401-488-A H3 BOARD, MOUNT	
		**********	
		<CAPACITOR>	
C1930	1-130-483-00	MYLAR 0.01UF 5.00% 50V	
C1932	1-130-483-00	MYLAR 0.01UF 5.00% 50V	
		<CONNECTOR>	
CN1932	*1-564-521-11	PLUG, CONNECTOR 6P	
CN1934	*1-564-524-11	PLUG, CONNECTOR 9P	
		<DIODE>	
D1930	8-719-929-15	DIODE RD9.1ES-T1B	
		<JACK>	
J1931	1-691-293-31	JACK (HEADPHONR)	
J1932	1-750-517-11	JACK BLOCK, PIN 3P (VIDEO IN4)	
J1933	1-565-665-12	TERMINAL, S 4P (VIDEO IN4)	
		<COIL>	
L1931	1-408-603-31	INDUCTOR 10UH	
L1932	1-408-603-31	INDUCTOR 10UH	
		<RESISTOR>	
R1934	1-216-809-11	METAL SHIP 100 5% 1/10W	
R1935	1-216-809-11	METAL SHIP 100 5% 1/10W	
R1948	1-216-864-11	SHORT CHIP 0	
R1949	1-216-864-11	SHORT CHIP 0	
R1951	1-216-864-11	SHORT CHIP 0	
R1952	1-216-825-11	METAL SHIP 2.2K 5% 1/10W	
**********			

REF.NO.	PART NO.	DESCRIPTION	REMARK
		* A-1400-957-A V2 BOARD, MOUNT	
		**********	
		<CAPACITOR>	
C5802	1-163-038-91	CERAMIC CHIP 0.1UF 16V	
C5805	1-163-038-91	CERAMIC CHIP 0.1UF 16V	
C5806	1-163-038-91	CERAMIC CHIP 0.1UF 16V	
C5815	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C5816	1-126-963-11	ELECT 4.7UF 20.00% 50V	
C5817	1-107-826-11	CERAMIC CHIP 0.1UF 10.00% 16V	
C5818	1-162-924-11	CERAMIC CHIP 56PF 5.00% 50V	
C5820	1-162-924-11	CERAMIC CHIP 56PF 5.00% 50V	
C5821	1-163-038-91	CERAMIC CHIP 0.1UF 25V	
C5822	1-163-009-11	CERAMIC CHIP 0.001UF 10.00% 50V	
C5823	1-126-963-11	ELECT 4.7UF 20.00% 50V	
C5826	1-126-963-11	ELECT 4.7UF 20.00% 50V	
C5830	1-163-038-91	CERAMIC CHIP 0.1UF 25V	
C5831	1-126-933-11	ELECT 100UF 20.00% 16V	
C5835	1-163-038-91	CERAMIC CHIP 0.1UF 25V	
C5837	1-126-933-11	ELECT 100UF 20.00% 16V	
C5852	1-162-995-11	CERAMIC CHIP 0.022UF 50V	
C5853	1-126-963-11	ELECT 4.7UF 20.00% 50V	
		<CONNECTOR>	
CN5801	*1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	
CN5803	*1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	
		<DIODE>	
D5802	8-719-914-44	DIODE DAP202K	
D5803	8-719-045-99	DIODE RD2.2M-T1B	
		<FERRITE BEAD>	
FB5801	1-410-397-21	FERRITE 1.1UH	
FB5803	1-410-397-21	FERRITE 1.1UH	
FB5804	1-410-397-21	FERRITE 1.1UH	
FB5805	1-410-397-21	FERRITE 1.1UH	
		<IC>	
IC5801	6-700-607-01	IC SAA5264PS/M3	
IC5802	8-759-828-44	IC NJM2870F33 (TE2)	
		<TRANSISTOR>	
Q5801	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q5803	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q5806	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5807	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5808	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5810	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R5821	1-217-725-00	RES-CHIP 24K 5% 1/16W	
R5822	1-216-025-11	RES-CHIP 100 5% 1/10W	
R5828	1-216-025-11	RES-CHIP 100 5% 1/10W	
R5829	1-216-025-11	RES-CHIP 100 5% 1/10W	
R5830	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R5831	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5839	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R5841	1-216-025-11	RES-CHIP	100	5%	1/10W
R5842	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5845	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5846	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5847	1-216-025-11	RES-CHIP	100	5%	1/10W
R5848	1-216-025-11	RES-CHIP	100	5%	1/10W
R5849	1-216-025-11	RES-CHIP	100	5%	1/10W
R5851	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5853	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R5857	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5859	1-216-029-00	RES-CHIP	150	5%	1/10W
R5860	1-216-029-00	RES-CHIP	150	5%	1/10W
R5861	1-216-043-91	RES-CHIP	560	5%	1/10W
R5862	1-216-029-00	RES-CHIP	150	5%	1/10W
R5863	1-216-043-91	RES-CHIP	560	5%	1/10W
R5864	1-216-041-00	RES-CHIP	470	5%	1/10W
R5866	1-215-858-00	METAL OXIDE	15	5%	1W
R5871	1-216-037-00	RES-CHIP	330	5%	1/10W
R5875	1-216-041-00	RES-CHIP	470	5%	1/10W
R5876	1-216-041-00	RES-CHIP	470	5%	1/10W
R5877	1-216-041-00	RES-CHIP	470	5%	1/10W
R5878	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5882	1-216-043-91	RES-CHIP	560	5%	1/10W
R5883	1-216-041-00	RES-CHIP	470	5%	1/10W
R5884	1-216-025-11	RES-CHIP	100	5%	1/10W
R5886	1-216-037-00	RES-CHIP	330	5%	1/10W
R5887	1-216-041-00	RES-CHIP	470	5%	1/10W
R5892	1-216-025-11	RES-CHIP	100	5%	1/10W
R5893	1-216-041-00	RES-CHIP	470	5%	1/10W
R5899	1-216-025-11	RES-CHIP	100	5%	1/10W

<CRYSTAL>

X5801	1-578-774-11	VIBRATOR, CRYSTAL

****

MISCELLANEOUS
****

⚠	1-451-537-13	DEFELECTION YOKE
⚠	1-451-557-05	CRT P16LXL00BMB (U)
⚠	1-451-558-05	CRT P16LXL00HHA (U)
⚠	1-451-559-05	CRT P16LXL00RFA (U)
	1-528-864-11	BATTERY, SOLAR
*	1-555-110-00	CABLE, PIN
⚠	1-757-345-11	POWER, CORD (WITH FILTER) (KP-FX43M31/FX53M31)
⚠	1-791-439-11	POWER, CORD (WITH CONNECTOR) (KP-FX43M61/M91,FX53M61/M91)
	1-825-201-11	LOUDSPEAKER (12 CM) (KP-FX43M31/M61/M91)
	1-825-202-11	LOUDSPEAKER (2.8 CM) (KP-FX43M31/M61/M91)
	1-825-203-11	LOUDSPEAKER (16 CM) (KP-FX53M31/M61/M91)
	1-825-204-11	LOUDSPEAKER (10 CM) (KP-FX53M31/M61/M91)
⚠	8-598-955-32	BLOCK ASSY, HV HVB-1031

ACCESSORIES AND PACKING MATERIALS
****

*	4-041-423-11	SHEET, PROTECTION (KP-FX43M31/M61/M91)
*	4-055-672-01	BAG, PROTECTION (KP-FX53M31/M61/M91)
*	4-055-673-01	SHEET, PROTECTION (KP-FX53M31/M61/M91)
*	4-081-035-01	JOINT
*	4-088-937-01	TRAY(KP-FX43M31/M61/M91)
*	4-088-938-01	BOARD, BOTTOM (KP-FX43M31/M61/M91)
*	4-089-318-01	TRAY (KP-FX53M31/M61/M91)
*	4-089-319-02	BOARD, TOP (KP-FX53M31/M61/M91)
*	4-089-320-01	BOARD, BOTTOM (KP-FX53M31/M61/M91)
*	4-090-211-01	INDIVIDUAL CARTON (KP-FX53M31/M61/M91)
*	4-090-212-01	CUSHION (UPPER) (KP-FX53M31/M61/M91)
*	4-090-213-01	CUSHION (LOWER) (KP-FX53M31/M61/M91)
*	4-090-214-01	INDIVIDUAL CARTON (KP-FX43M31/M61/M91)
*	4-375-488-11	BAG, PROTECTION (KP-FX43M31/M61/M91)
*	4-490-215-01	CUSHION (UPPER) (KP-FX43M31/M61/M91)
*	4-090-216-01	CUSHION (LOWER) (KP-FX43M31/M61/M91)
	4-090-470-12	MANUAL, INSTRUCTION

REMOTE COMMANDER
****

1-477-377-11	REMOTE COMMANDER (RM-998)
9-885-019-97	COVER, BATTERY(FOR RM-998)

9-965-352-01

Sony EMCS Corporation
Ichinomita Tec

English
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SONY

4-090-470-**21** (1)

SONY

Color Rear Projection TV *KP-FX53/FX43*

Projection TV

Operating Instructions — GB

• Before operating the unit, please read this manual thoroughly and retain it for future reference.

Mode d'emploi — FR

• Avant de faire fonctionner cet appareil, lisez attentivement le présent mode d'emploi et conservez-le pour toute référence ultérieure.

使用說明書 — CT

• 使用本電視機之前請先詳細閱讀此手冊，並妥善保存以備日後用作參考。

使用说明书 — CS

• 使用本电视机之前请先详细阅读此手册，并妥善保存以备日后用作参考。

دفترچه راهنما — PR

• قبل از تنظیم کردن دستگاه، لطفا دفترچه راهنما را با دقت بخوانید و به منظور مراجعه بعدی ان رانگه دارید.

تعليمات التشغيل — AR

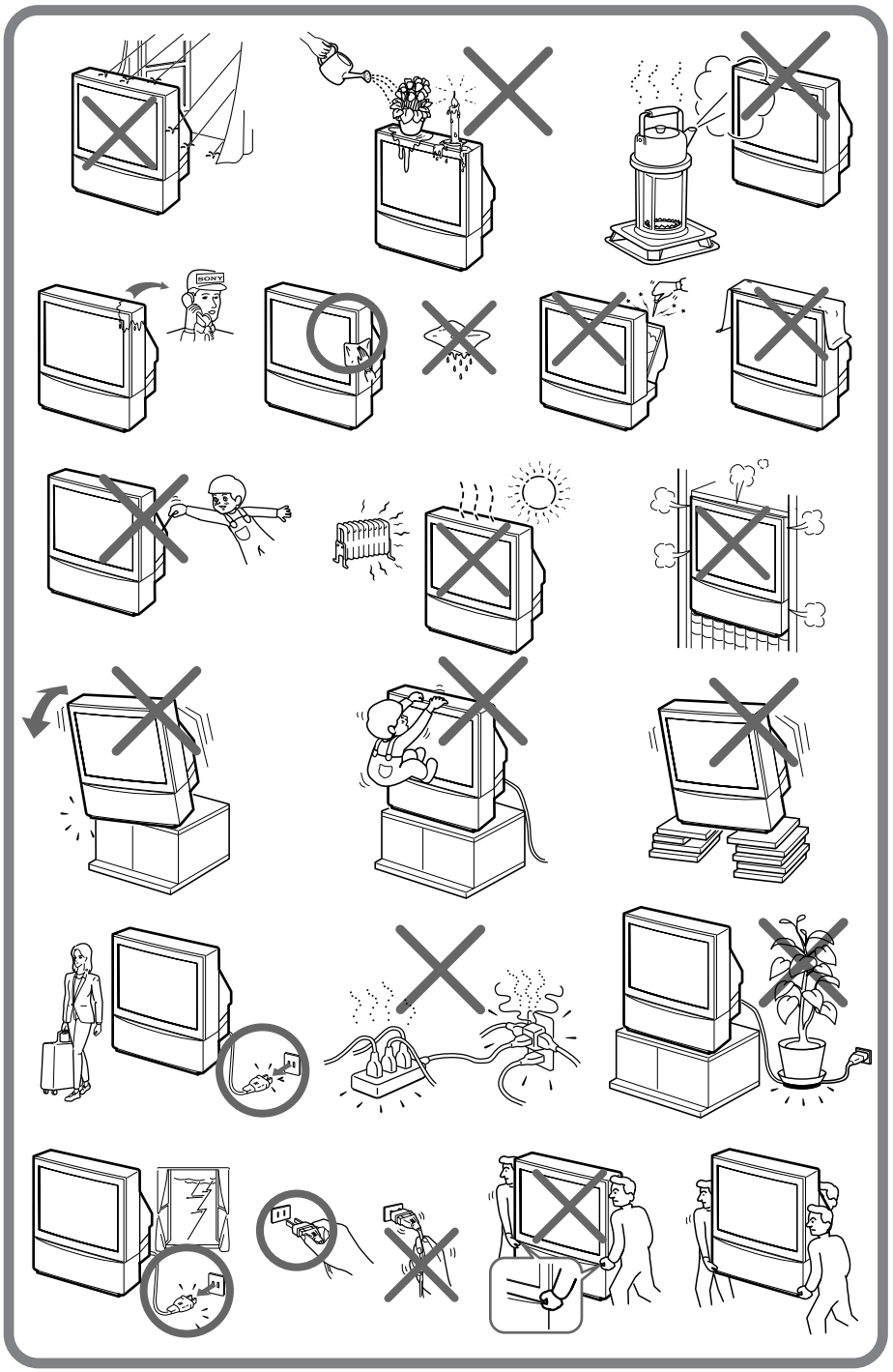
• قبل تشغيل الجهاز، نرجى قراءة هذا الدليل بصورة كاملة والاحتفاظ به للمراجعة مستقبلا.

Projection TV
WEGA

KP-FX53
KP-FX43

© 2002 Sony Corporation

M61



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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

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The features you will enjoy include:

- "DRC-MF" for viewing higher quality pictures (page 19)
- "TWIN" for viewing two programs (page 20)
- "PROGRAM INDEX" for displaying multiple programs (page 23)
- "PICTURE MODE"/"SOUND MODE"/ "SURROUND" for customizing your projection TV (pages 18 and 25)
- "WIDE MODE" to view 16:9 pictures (page 37)

Your projection TV also offers the following features:

- Initial Setup function for on-screen language selection, automatic channel presetting and automatic connvergence adjustment. (page 8)
- Menu language options — English/Chinese/Arabic (page 42)
- "CHILD LOCK" for locking out specific channels (page 48)
- "INTELLIGENT VOL" for automatic volume adjustment (page 39)
- "FINE" tuning feature (page 46)
- Button Joystick ⊕ on the remote control for easier operation (page 35)
- "ECO MODE" to save energy (page 43)
- "GAME MODE" for video games (page 37)

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture. Dangerously high voltages are present inside the projection TV. Do not open the cabinet. Refer servicing to qualified personnel only.

For general safety:

- Do not expose the projection TV to rain or moisture.
- Do not open the rear cover.

For safe installation:

- Do not block the ventilation openings.
- Do not install the projection TV in hot, humid or excessively dusty places.
- Do not install the projection TV where it may be exposed to mechanical vibrations.
- Avoid operating the projection TV at temperatures below 5 C (41 F).
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature has changed suddenly, the picture may be blurred or show poor color. This is because moisture has condensed on the mirror or lenses inside. If this happens, let the moisture evaporate before using the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of reflecting material. If necessary, cover them with dark carpeting or wall paper.
- Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

For safe operations:

- Do not operate the projection TV on anything but 110 - 240 V AC, 50/60 Hz.
- Do not operate the projection TV if any liquid or solid object falls in it—have it checked immediately.
- Do not keep the projection TV plugged in if you are not going to use it for several days.
- Do not pull the power cord to disconnect the projection TV. Pull it out by the plug.
- Do not plug in too many appliances to the same power socket. Do not damage the power cord.
- Do not place any object on the projection TV.
- Install the projection TV on a stable projection TV stand and floor which can support the projection TV set weight. Ensure that the projection TV stand surface is flat and its area is larger than the bottom area of the projection TV.
- Do not carry the projection TV holding the screen edges.

Caution

- When using TV games, computers, and similar products with your projection TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Cleaning the Screen

- To clean the screen with a cloth, please use a soft cloth lightly moistened with a mild detergent solution or water. Do not use any type of abrasive pad, alkaline cleaner, scouring powder or solvent, such as alcohol or benzine. As a safety precaution, unplug the TV before cleaning it.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items, like a ball point pen or a screw driver. Otherwise, this type or contact may result in a scratched screen.

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Getting Started

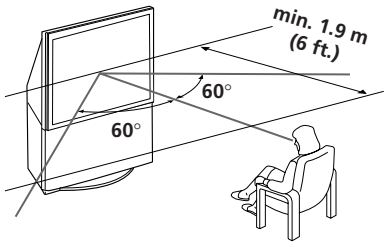
Step 1

Install the projection TV

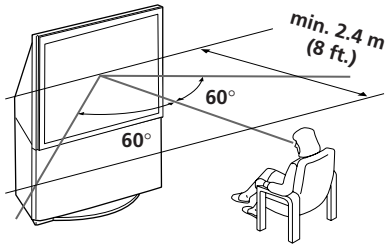
For the best picture quality, install the projection TV within the areas below.

Optimum viewing area (Horizontal)

KP-FX43

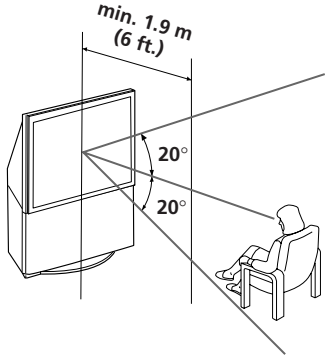


KP-FX53

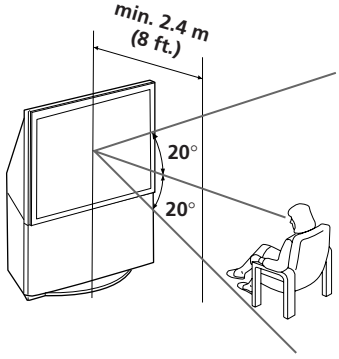


Optimum viewing area (Vertical)

KP-FX43



KP-FX53



continued

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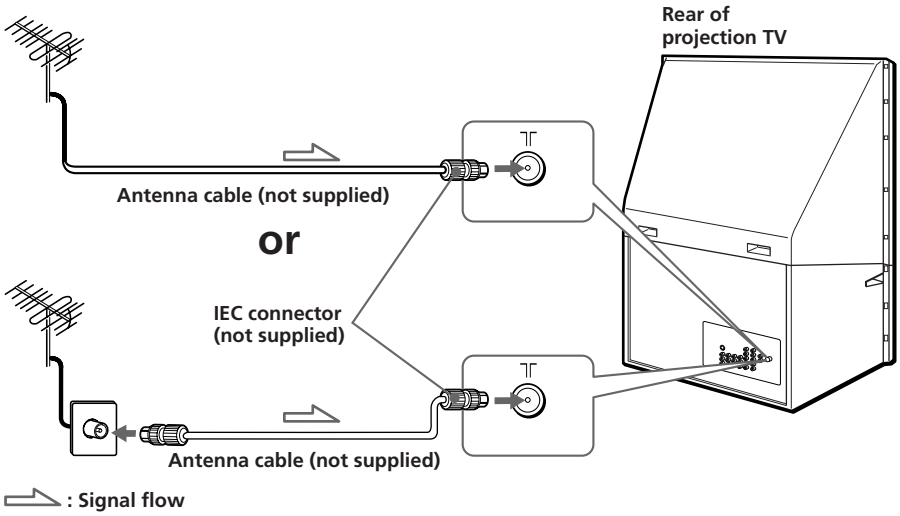
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Step 2

Connect the antenna

If you wish to connect a VCR, see the "Connecting a VCR" diagram on page 7.



CAUTION

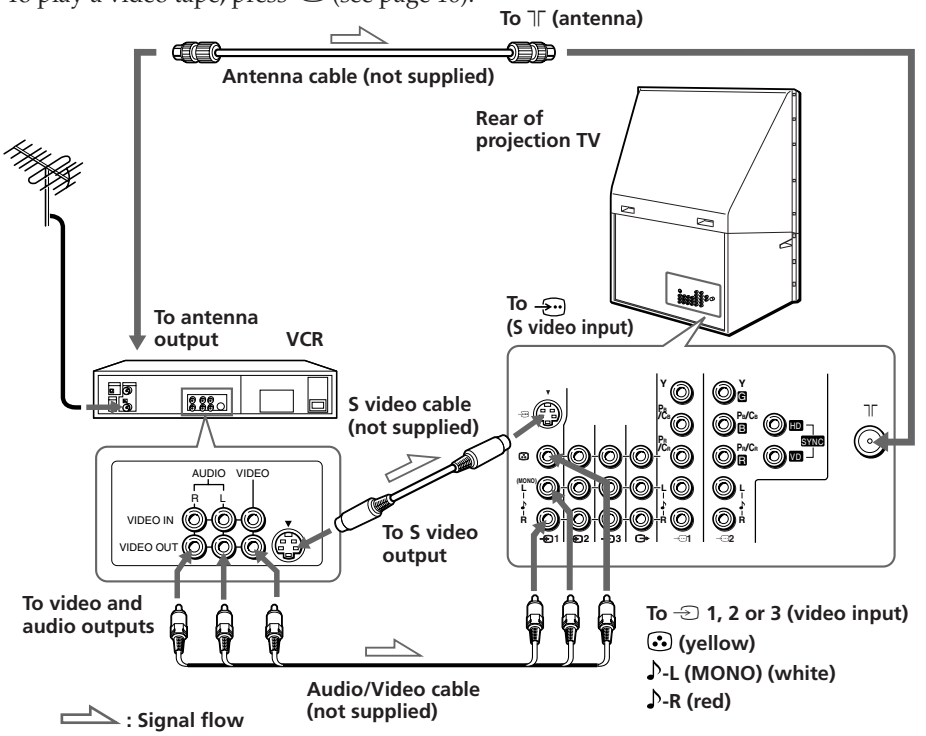
Do not connect the power cord until all other connections are complete, otherwise, a minimal current leakage through the antenna and/or other terminals to the ground could occur.

01GB04GET-p65 6 02.8.21, 5:10 PM

Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting a VCR

To play a video tape, press ⊖ (see page 16).

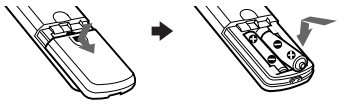


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to ♪-L (MONO) (the white jack).
- If you connect a VCR to the ⊤ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the projection TV.
- When both the ⊖ (S video input) and ⊖ 1 (video input) are connected, the ⊖ (S video input) is automatically selected. To view the video input to ⊖ 1 (video input), disconnect the S video cable.

Step 3

Insert the batteries into the remote



Note

- Do not use old batteries or different types of batteries together.

continued

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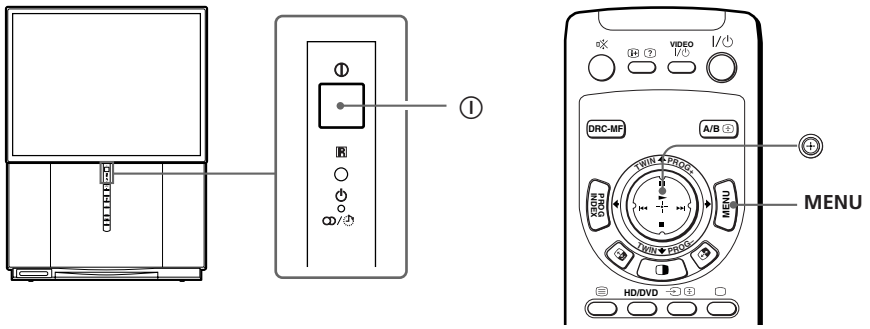
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

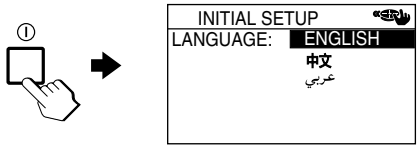
Step 4

Setting up your projection TV automatically



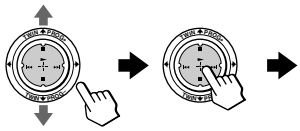
1 **Press ⏻ to turn on the projection TV.**

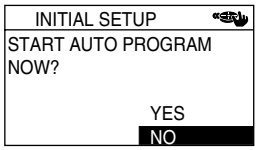
The "INITIAL SETUP" menu appears, and you can select the on-screen language.



2 **Move ⊕ up or down to select the desired language, then press ⊕.**

The automatic channel presetting menu appears.





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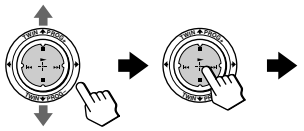
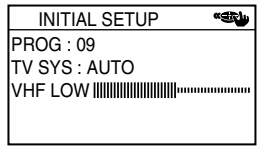
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

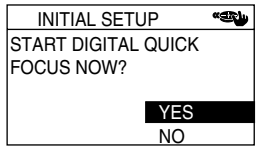
3 **Move ⊕ up or down to select "YES", then press ⊕ to preset the channel automatically.**

The screen will indicate automatic presetting is in progress.

After channel presetting is complete, automatic convergence adjustment menu appears.

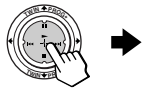


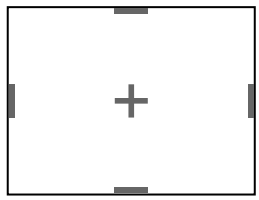


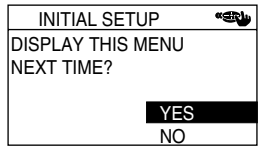


4 **Make sure that "YES" is selected, then press ⊕.**

The convergence adjustment screen appears, and the convergence is automatically adjusted. The last "INITIAL SETUP" menu appears.







5 **Move ⊕ up or down to select "NO", then press ⊕.**

The "INITIAL SETUP" menu will not appear again the next time you turn on the projection TV by pressing ⏻.

To allow this menu to appear again, select "YES", then press ⊕.

Notes

- If you want to cancel any setup, move ⊕ up or down to select NO and press ⊕, or press MENU.
- If your projection TV has preset an unwanted channel or cannot preset a particular channel, then preset your projection TV manually (see page 45).
- Convergence is also adjusted manually using the menu (see page 44.)
- You can also perform the Digital Quick Focus feature using ⊕ on the front panel of the projection TV.
- Sound will mute while the Digital Quick Focus feature is running.

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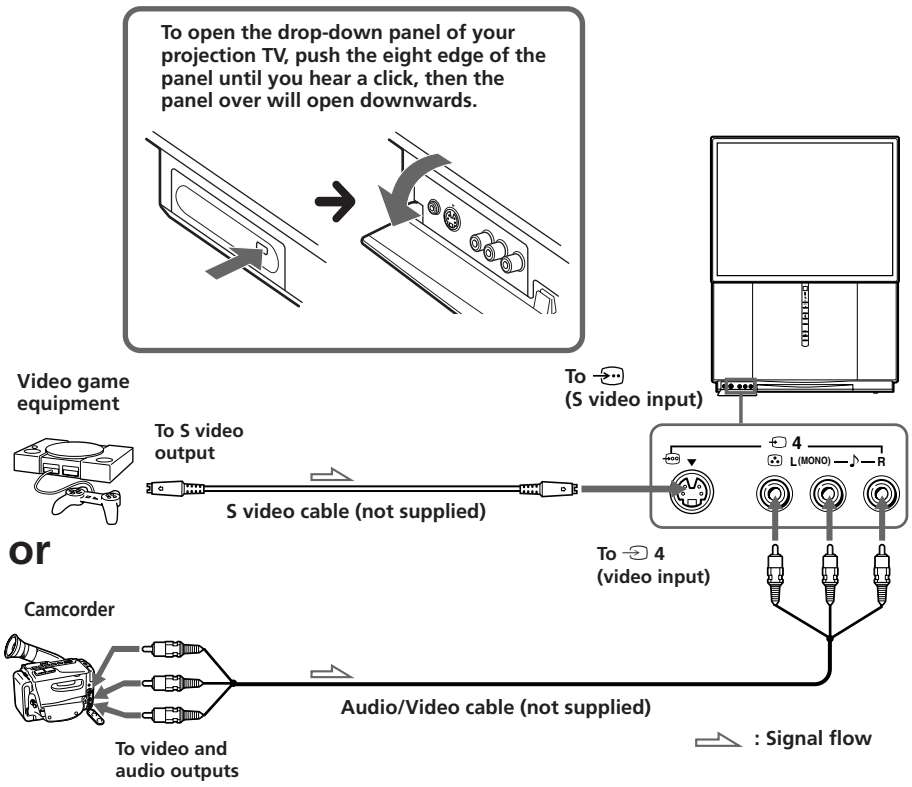
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting optional components

You can connect optional audio/video components, such as a VCR, a DTV (Digital Television) Receiver, multi disc player, camcorder, video game, or stereo system. To watch and operate the connected equipment, see pages 16 and 30.

Connecting a camcorder/video game equipment using the ⇨ (video input) jacks


To open the drop-down panel of your projection TV, push the eight edge of the panel until you hear a click, then the panel over will open downwards.
Video game equipment
To S video output
To ⇨ (S video input)
4
L(MONO)
R
S video cable (not supplied)
or
To ⇨ 4 (video input)
Camcorder
Audio/Video cable (not supplied)
To video and audio outputs
: Signal flow

Notes

- When connecting video game equipment, display the "PICTURE" menu and select "ON" for "GAME MODE" to adjust the picture setting that is suitable for video games (see page 37).
- You can also connect video equipment to the ⇨ 1, 2, or 3 (video input) jacks at the rear of your projection TV.
- When both the ⇨ (S video input) and ⇨ 4 (video input) are connected, the ⇨ (S video input) is automatically selected. To view the video input to ⇨ 4 (video input), disconnect the S video cable.

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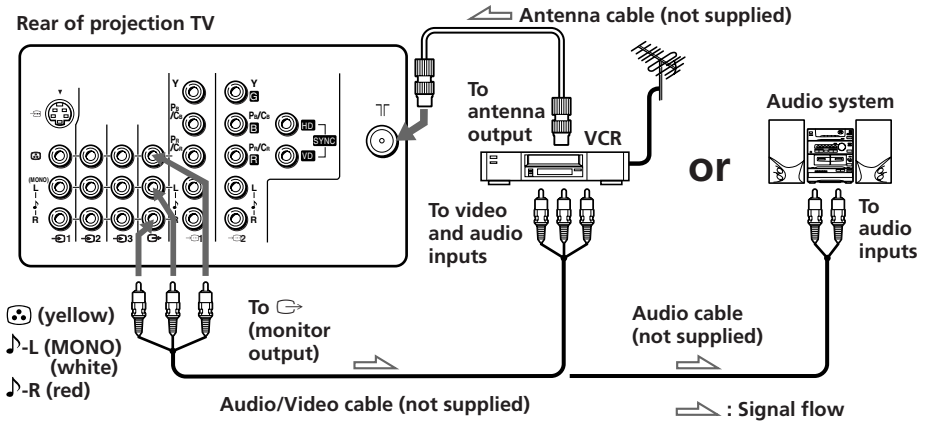
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting audio/video equipment using the ⇨ (monitor output) jacks



Note

- If you select "HD/DVD 1" or "HD/DVD 2" on your TV screen, sound will be heard but no picture will be output from ⇨ (monitor output) (see page 16).

continued

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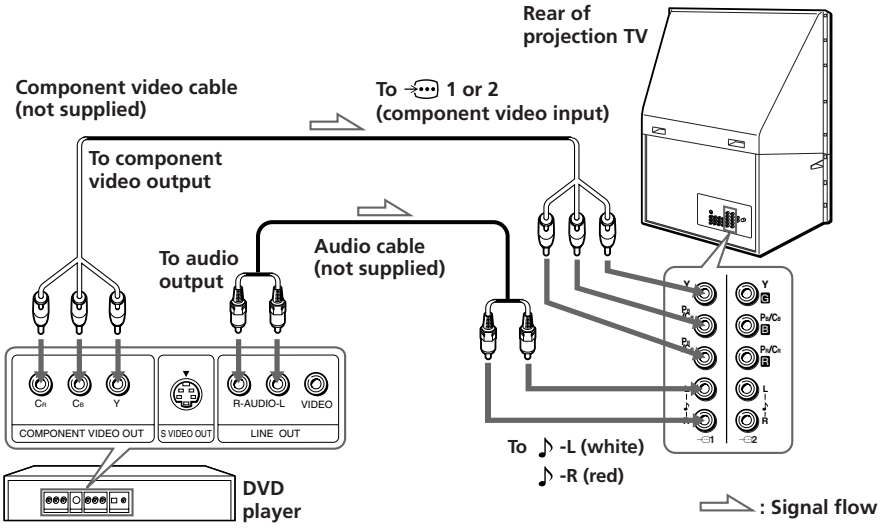
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting a DVD player to (component video input)

1 Using an audio cable, connect R and L under 1 or 2 (component video input) on your projection TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, P_B/C_B, and P_R/C_R under 1 or 2 (component video input) on your projection TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.

3 Press or HD/DVD on the remote or on the projection TV until "HD/DVD 1" appears on the screen if you connect your DVD player to 1, or "HD/DVD 2" for connection to 2.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
P_B/C_B (blue)	C_b, B-Y or P_B
P_R/C_R (red)	C_r, R-Y or P_R

- Connect nothing to the HD/VD jacks when connecting a DVD player to 1 or 2 (component video input).
- If you select "HD/DVD 1" or "HD/DVD 2" on your projection TV screen, sound will be heard but no picture will be output from (monitor output). This does not indicate a malfunction.
- When receiving a progressive signal through (component video input), TWIN pictures and PROGRAM INDEX features are not available, and "DRC-MF" and "GAME MODE" are not selectable.

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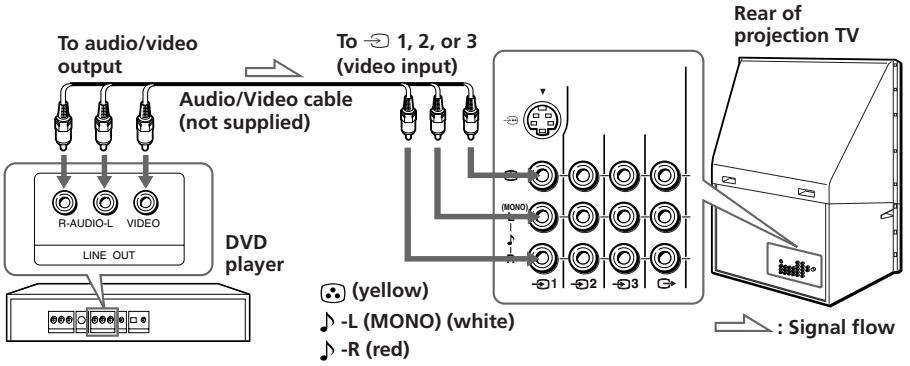
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting a DVD player to → (video input)

Connect → 1, 2, or 3 (video input) ♪/◉ (audio/video) connectors on your projection TV to LINE OUT on your DVD player.



Notes

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") under "ADJUST" in the "PICTURE MODE" menu (see page 38).
- You can also connect a DVD player to → (S video input) on the projection TV.

continued

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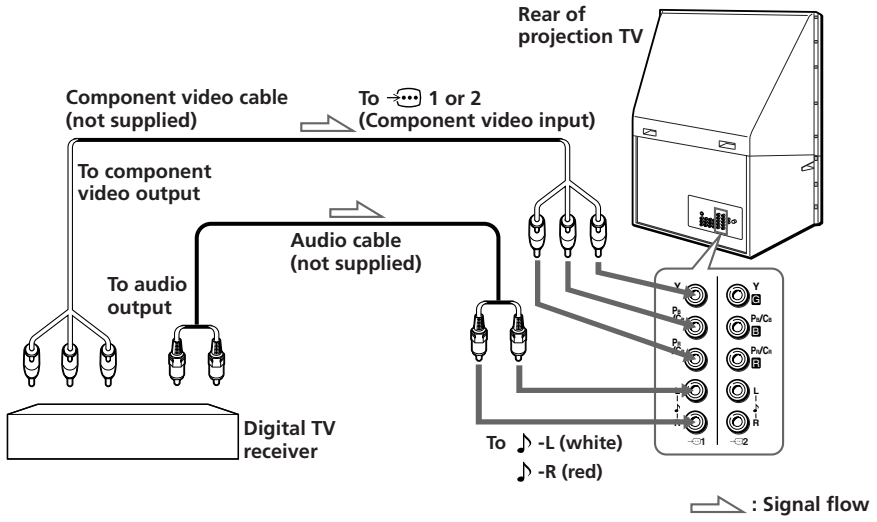
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Connecting a DTV (digital television) receiver to 1 or 2 (component video input) jacks



Notes

- The projection TV is equipped with the G/B/R/HD/VD inputs. If your DTV receiver is not equipped with the Y/P_B/P_R output connectors, use the G/B/R/HD/VD connectors.
- 1 can be used as the Y/P_B/P_R inputs.
- 2 can be used as the Y/P_B/P_R or G/B/R/HD/VD inputs. Connect nothing to the HD/VD connectors when using the Y/P_B/P_R inputs.

Tip

- The projection TV accepts the following signal formats:

Total scanning line	Effective scanning line	fV (Hz)
1125i	1080i	50/60
750p	720p	50/60
625p	576p	50
625i	576i	50
525p	480p	60
525i	480i	60

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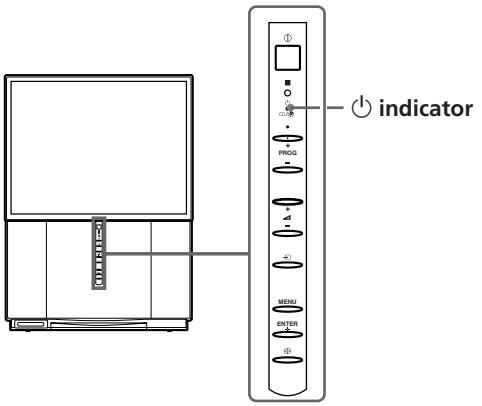
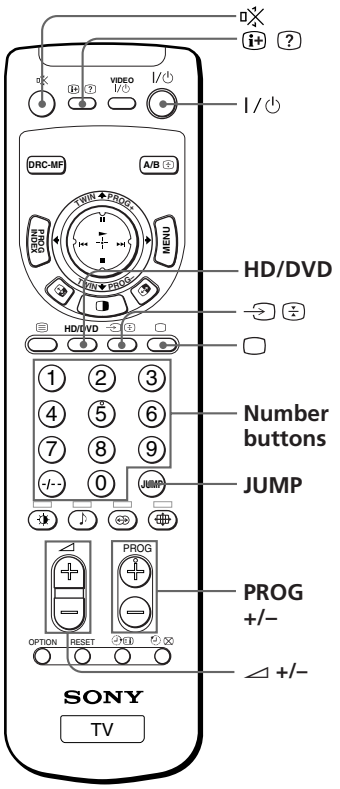
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Watching the TV

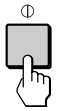
This section explains various functions and operations used while watching the TV. Most operations can be done using the remote.





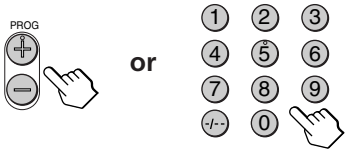
1 **Press ⏻ to turn on the projection TV.**

When the projection TV is in standby mode (the ⏻ indicator on the projection TV is lit red), press I/⏻ on the remote.



2 **Press PROG +/– or the number buttons to select the TV channel.**

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



Note

- When you turn on the projection TV, either the program number or video mode is displayed for approximately 40 seconds. The ECO MODE (ECO) icon will also appear if "ECO MODE " in the "SETUP" menu is set "ON" (see page 43).

continued

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

To select a TV program quickly

(1) Press and hold PROG +/–.
(2) Release PROG +/– when the desired program number appears.

Note

- When you select a TV program quickly, the picture may be disrupted. This does not indicate a malfunction.

Additional tasks

To	Press
Turn off temporarily	I/⏻. The ⏻ indicator on the projection TV lights up red.
Turn off completely	⏻ on the projection TV.
Adjust the volume	+/–.
Mute the sound	🔇.
Watch the video input (VCR, camcorder, etc.)	⏎ (or ⏎ on the projection TV) to select "VIDEO 1", "VIDEO 2", "VIDEO 3", "VIDEO 4", "HD/DVD 1" or "HD/DVD 2". To return to the TV screen, press 🖵 (or ⏎ on the projection TV).
Watch the component input (DVD, DTV receiver)	HD/DVD to select "HD/DVD 1" or "HD/DVD 2". To return to the TV screen, press 🖵 (or ⏎ on the projection TV).
Jump back to the previous channel	JUMP.
Display the on-screen information*	i+.

* Some picture/sound settings, and either the program number or video mode are displayed. The on-screen display for the picture/sound settings disappears after about 3 seconds.

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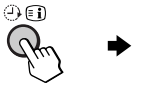
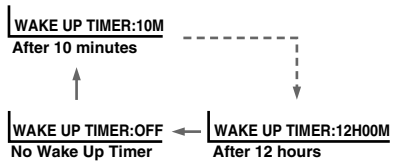
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Setting the Wake Up timer

1 Press ◴ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.





2 Select the TV channel or video mode you want to wake up to.

3 Press **I**/⏻, or set the Sleep timer if you want the projection TV to turn off automatically.

The ◴ indicator on the projection TV lights up orange.

To cancel the Wake Up timer

Press ◴ until "WAKE UP TIMER: OFF" appears, or press ⏻ on the projection TV to turn it off.

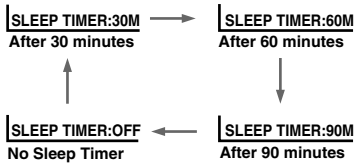
Note

- If no buttons or controls are pressed for more than two hours after the projection TV is turned on using the Wake Up timer, the projection TV automatically goes into standby mode. To resume watching the TV, press any button on the projection TV or the remote.

Setting the Sleep timer

Press ◴ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

Press ◴ until "SLEEP TIMER: OFF" appears, or turn the projection TV off.

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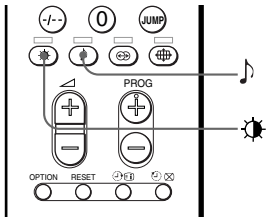
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

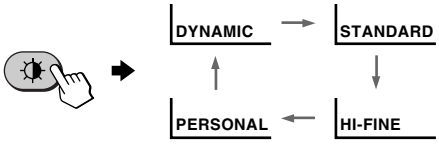
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the "PERSONAL" option.



Selecting the picture mode

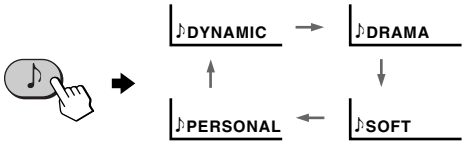
Press ☼ repeatedly until the desired picture mode is selected.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal pictures.
"HI-FINE"	receive higher density pictures with mild contrast.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 38).

Selecting the sound mode

Press ♪ repeatedly until the desired sound mode is selected.



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes both the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 40).

Tip

- You can also set the picture and sound modes using the menu (see "Changing the "PICTURE" setting" on page 36 and "Changing the "SOUND" setting" on page 39).

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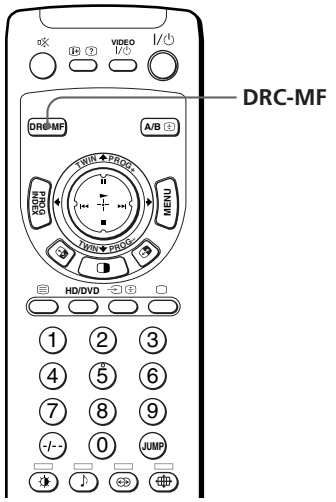
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

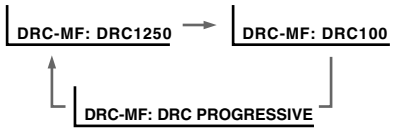
Viewing higher quality pictures

— "DRC-MF"

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your projection TV. You can select "DRC1250" to watch super real (higher resolution) pictures, or "DRC100" for moving pictures or "DRC PROGRESSIVE" for still pictures to reduce flicker if necessary.



Press DRC-MF repeatedly until you receive the desired picture quality.



Select	To
"DRC1250"	select higher resolution pictures.
"DRC100"	reduce flicker on the screen.
"DRC PROGRESSIVE"	reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen.

Tip

- When the broadcast signal is weak, you may see some dots or noise on the TV screen. To reduce this interference, display the "PICTURE" menu and select "ADJUST" in "PICTURE MODE", then adjust "SHARP" to reduce the sharpness (see page 38).

Note

- The DRC-MF mode is not selectable when using the "PROGRAM INDEX" feature, or when the "GAME MODE" or "TWIN" mode is turned "ON". The mode is not also selectable for HD (high-definition) or progressive signal.

The DRC-MF logo (DRC-MF Digital Reality Creation) and "DRC-MF" are trademarks of Sony Corporation.

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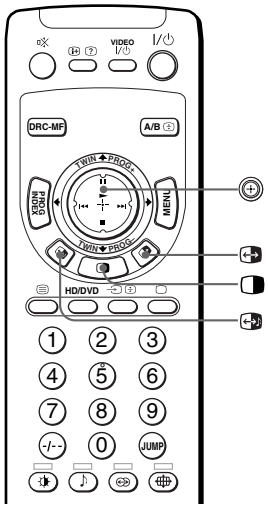
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Watching two programs at the same time

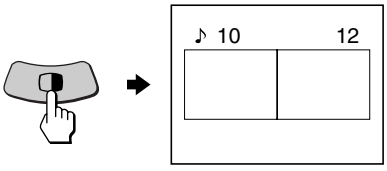
— "TWIN"

With the TWIN pictures feature, you can display a different TV program beside the main picture.



Displaying TWIN pictures

Press ◑.



To return to the normal screen

Press ◑.
The left picture is displayed in full screen.

Tip

- You can also display the TWIN pictures using the menu (see "Changing the MULTI PICTURE setting" on page 41).
- Pressing ⊕ displays the right picture in full screen (see "Selecting a TV program using TWIN" on page 22).

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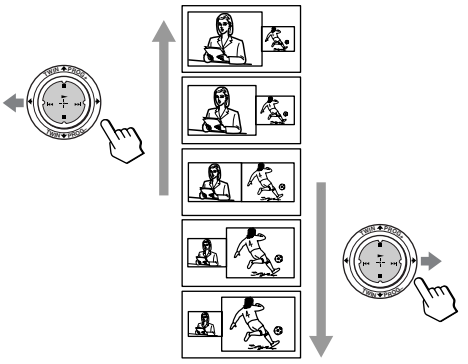
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Additional tasks

To	Press/Move
change a TV program in the right picture	Move ⊕ up or down (TWIN PROG + or –).
swap the left and right pictures	Press ⇔.
swap sound between the left and right pictures.	Press ⇔. The "♪" symbol will appear to indicate which screen you are hearing.
change the screen size of the TWIN pictures	Move ⊕ left to increase the left screen size. Move ⊕ right to increase the right screen size. 

Notes

- Swapping the pictures is not available for HD or DVD input signals.
- The TWIN pictures feature is not available for HD (high-definition) and progressive signals. If you change the left main picture to an HD or progressive signal, a message appears and the TWIN pictures feature is cancelled. The selected HD or progressive picture will be displayed in full screen.
- You cannot enjoy stereo sound in the right picture.
- You cannot change the picture to a video input in the right picture. You can only display a video input, except for HD and progressive signals, in the right picture by swapping the pictures when a video input is displayed in the left picture.
- When the ◑ button is pressed, the TV screen flickers or goes blank for about one second before the TWIN pictures appear. This does not indicate a malfunction of the projection TV.

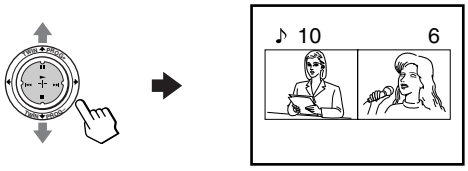
continued

Selecting a TV program using TWIN

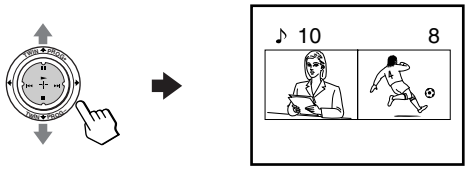
You can select your desired TV program directly from the right picture by using ⊕ (TWIN PROG +/–).

1 Move ⊕ up or down (TWIN PROG +/–).

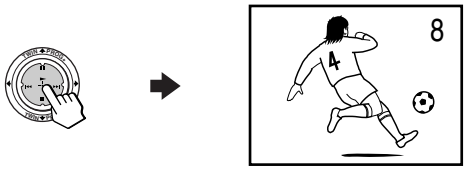
The TWIN pictures appear on the screen.



2 Move ⊕ up or down (TWIN PROG +/–) until the desired program appears on the right screen.



3 Press ⊕ to display the right picture in full screen.



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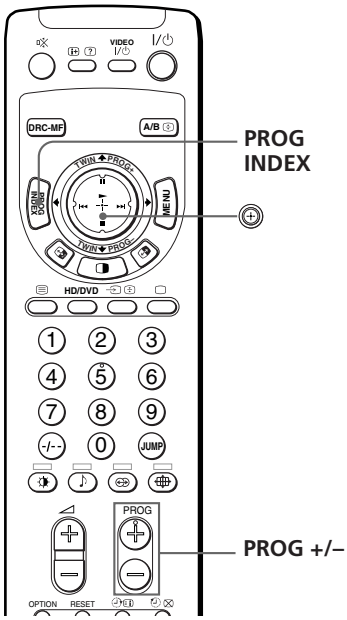
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Displaying multiple programs

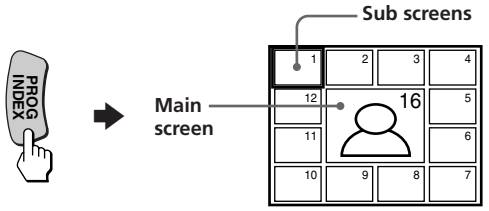
— "PROGRAM INDEX"

The PROGRAM INDEX feature displays all of the preset TV programs on twelve sub screens for direct selection.



Press PROG INDEX.

The first twelve preset programs appear one by one, clockwise from the upper left corner.



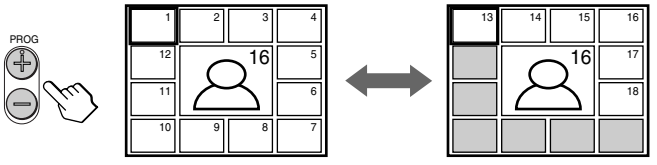
Tip

- When you press the PROG INDEX button in the TWIN pictures mode, the left picture appears as the main screen of the PROGRAM INDEX mode.

To view the next or the previous twelve preset programs

This works only when the number of the preset TV programs is more than twelve.

Press PROG +/– on the remote or on the projection TV.



continued

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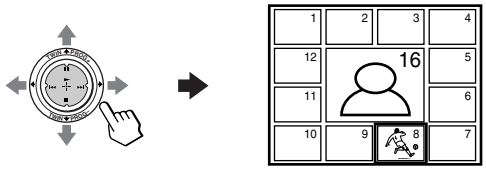
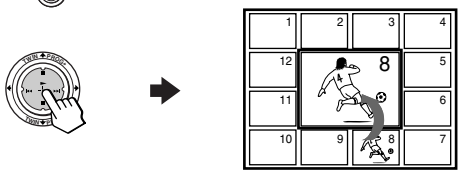
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

To select the desired program directly from the sub screens

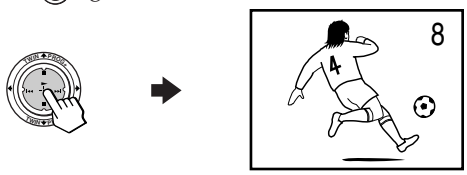
1 Move ⊕ up, down, left or right to move the frame to the screen of the program you want to watch.



2 Press ⊕.



3 Press ⊕ again.



Tip

- Pressing the number buttons directly displays the program.

To return to the normal screen

Press PROG INDEX again, or:

1 Select “PROGRAM INDEX” from the “MULTI PICTURE” menu.
2 Press ⊕.

Tip

- You can also display multiple programs using the menu (see “Changing the MULTI PICTURE setting” on page 41).

Notes

- When displaying multiple programs, only the sound of the main screen is heard.
- The PROGRAM INDEX feature is not available for HD (high-definition) and progressive signals. The selected HD or progressive picture will be displayed in full screen.

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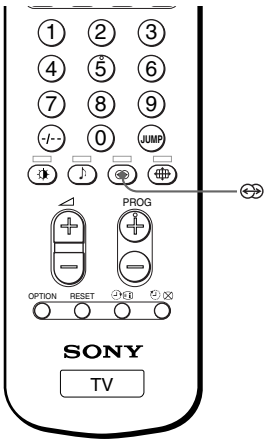
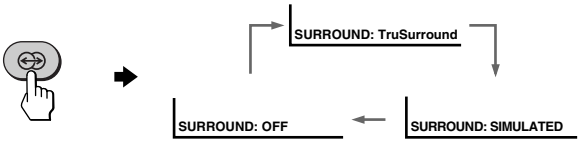
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press ⇔ repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"*	listen to the surround sound that spreads out to the rear of a room.
"SIMULATED"	listen to monaural sound with a stereo-like effect.
"OFF"	turn off the surround sound.

* TruSurround and the (●)® symbol are trademarks of SRS Labs, Inc. TruSurround technology is incorporated under license from SRS Labs, Inc.

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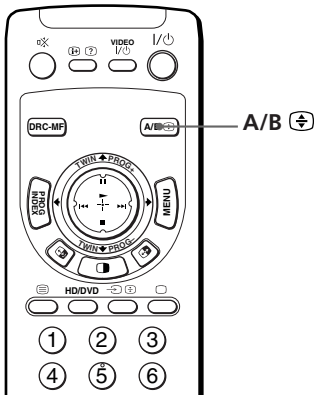
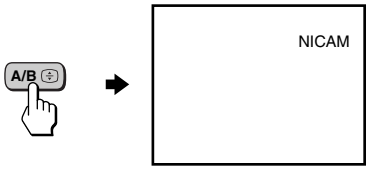
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.
When you receive the channel with them, the ⌀ indicator on the front panel of the projection TV lights up red.



Press A/B repeatedly until you receive the sound you want.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound)
NICAM monaural	NICAM MAIN (Main sound) → MONO (Regular sound)

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	MONO (Regular sound) → STEREO (Stereo sound)
A2 (German) bilingual	MAIN (Main sound) → SUB (Sub sound)

Receiving area for NICAM and A2 (German) programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.
- Before receiving a NICAM stereo program in China, please check the NICAM broadcast condition at your area. When receiving a NICAM stereo program, the receiving conditions might vary depending on area. In addition, different strength of the NICAM broadcast signal might affect the receiving quality.

If the sound is distorted or noisy when receiving a monaural program through the ⅂Γ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

MONO → AUTO

Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive a stereo broadcast signal when the projection TV is in the "MONO" setting. Normally, set the projection TV to "AUTO".

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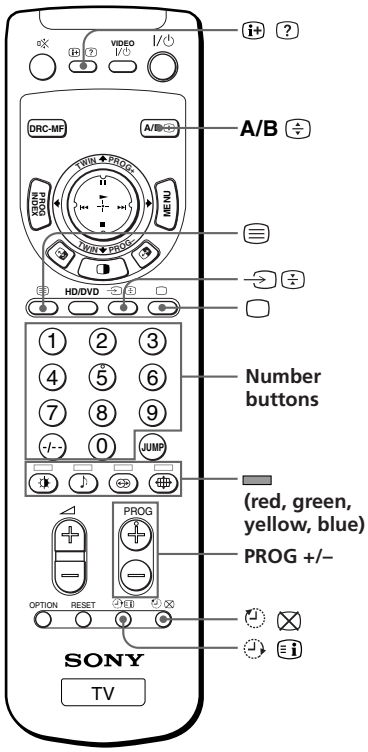
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Viewing Teletext

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

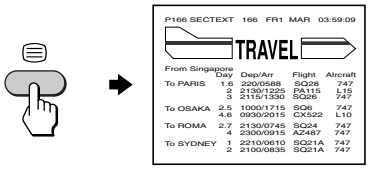


Displaying Teletext

1 Select a TV channel that carries the Teletext broadcast you want to watch.

2 Press ☰ to display the text.

A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100?" is displayed at the top left corner of the screen after approximately 10 seconds.



To turn off Teletext

Press ▢.

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press ☰. Each time you press ☰ , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press ☰i. An overview of the Teletext contents, including page numbers, appears on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page.* If you make a mistake, reenter the correct page number. To access the next or previous page, press PROG +/–.
hold (pause) a Teletext page (stop the page from scrolling)	Press ⊜ to display the symbol "⊜" at the top left corner of the screen. To resume normal Teletext viewing, press ⊜ or ☰.
reveal concealed information (e.g., an answer to a quiz)	Press ?. To conceal the information, press the button again.
enlarge the Teletext display	Press ⇳. Each time you press ⇳, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
stand by for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press ⊠. 2 When the page number is displayed, press ☰ to show the text.

* You can also select a Teletext page of any page number that appears in the colored column at the bottom of the screen using the corresponding color-coded button on the remote.

Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcast, colored menus appear at the bottom of the screen. The color of each menu corresponds to the color-coded buttons on the remote (red ▬ , green ▬ , yellow ▬ , and blue ▬).

To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after a few seconds.

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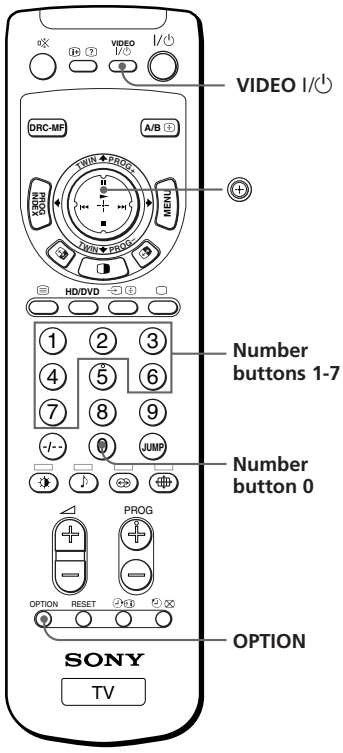
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Operating optional components

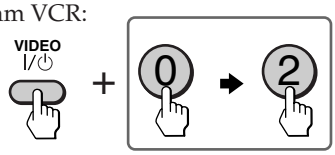
You can use the supplied remote to operate Sony video equipment such as Beta, 8 mm, VHS or DVD.



Setting up the remote to work with other connected equipment

While keeping VIDEO I/⏻ pressed, press the number button 0, then the corresponding number button for the desired equipment (see the table below).

For example, to operate a Sony 8 mm VCR:



To control	While holding down	First press the number button	Next press the number button
DVD	VIDEO I/⏻	0	0
VTR1 (Beta)	VIDEO I/⏻	0	1
VTR2 (8 mm)	VIDEO I/⏻	0	2
VTR3 (VHS)	VIDEO I/⏻	0	3
MDP	VIDEO I/⏻	0	4
CD	VIDEO I/⏻	0	6
MD	VIDEO I/⏻	0	7

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Note

- If the equipment does not have a certain function, the corresponding button on the remote will not operate.

Operating video equipment

Press VIDEO I/⏻, or while keeping OPTION pressed, press ⊕ (►) or move ⊕ up (❚❚), down (■), left (I◄◄) or right (►►I) (see the table below).

Operating a VCR using the remote

To	Press/Move
turn on/off	VIDEO I /⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
fast forward (►►)	►►I while keeping OPTION pressed.
rewind the tape (◄◄)	I◄◄ while keeping OPTION pressed.
pause	❚❚ while keeping OPTION pressed. Press again to resume normal playback.
search the picture forward (►►) or backward (◄◄)	►►I or I◄◄ during playback while keeping OPTION pressed. Release to resume normal playback.

Operating a DVD player using the remote

To	Press/Move
turn on/off	VIDEO I /⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
pause	❚❚ while keeping OPTION pressed. Press again to resume normal playback.
step through different tracks of an audio disc	►►I to step forward or I◄◄ to step backward while keeping OPTION pressed.

continued

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Operating an MDP using the remote

To	Press/Move
turn on/off	VIDEO I /⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
pause	II while keeping OPTION pressed. Press again to resume normal playback.
search the picture forward or backward	▶▶I or I◀◀ during playback while keeping OPTION pressed. Release to resume normal playback.

Operating a CD or MD player using the remote

To	Press/Move
turn on/off	VIDEO I /⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
pause	II while keeping OPTION pressed. Press again to resume normal playback.
step through different tracks	▶▶I to step forward or I◀◀ to step backward while keeping OPTION pressed.

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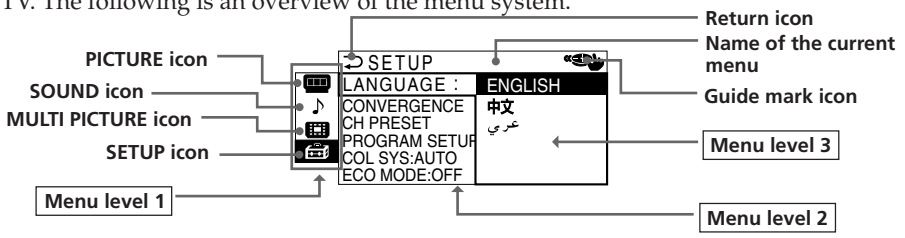
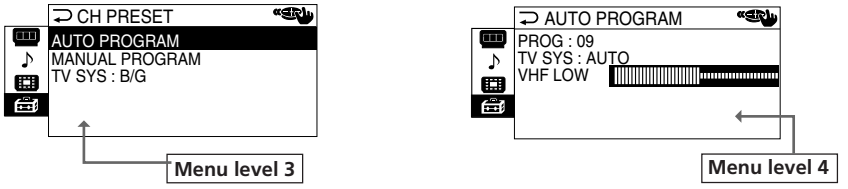
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Introducing the menu system

The MENU button lets you open a menu and change the settings of your projection TV. The following is an overview of the menu system.



Selecting some items in Menu level 2 of SETUP menu displays another menu (Menu level 3), and selecting some options in this menu also displays the adjustment menu (Menu level 4).



Level 1	Level 2/Level 3	Level 3/Level 4/Function
"PICTURE"	"DRC-MF"	Select the "DRC-MF" mode: "DRC1250" → "DRC100" → "PROGRESSIVE"
	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"3D-NR"	Activate or deactivate picture noise reduction mode.
	"WIDE MODE"	Activate or deactivate "WIDE MODE" feature.
	"GAME MODE"	Activate or deactivate "GAME MODE" feature.
"SOUND"	"SOUND MODE"	Select the sound mode: "DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE" → "BALANCE" → "BBE"*
	"SURROUND"	Select the "SURROUND" mode: "TruSurround" → "SIMULATED" → "OFF"
	"INTELLIGENT VOL"	Adjust the volume automatically.

* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

continued

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Level 1	Level 2/Level 3	Level 3/Level 4/Function
"MULTI PICTURE"	"TWIN"	Display a TV program beside the main screen.
	"SWAP"	Swap the pictures between the left and right screens.
	"PROGRAM INDEX"	Display all the preset TV programs at the same time.
"SETUP"	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic)
	"CONVERGENCE"	Adjust the convergence.
	"DIGITAL QUICK FOCUS"	Adjust the convergence automatically.
	"MANUAL ADJUST"	The manual adjustment screen appears. Adjust the convergence manually.
	"CH PRESET"	Preset channels, or select the TV system.
	"AUTO PROGRAM"	The "AUTO PROGRAM" menu is displayed. Preset channels automatically.
	"MANUAL PROGRAM"	The "MANUAL PROGRAM" menu is displayed. Preset channels manually.
	"TV SYS"	Select the TV system: "B/G" → "I" → "D/K" → "M"
	"PROGRAM SETUP"	Skip unwanted program numbers, or block specific channels.
	"PROG"	Select a program number you want to skip or block.
	"SKIP"	Skip unwanted or unused program numbers.
	"CHILD LOCK"	Lock out specific channels.
	"COL SYS"	Select the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
	"ECO MODE"	Activate or deactivate ECO MODE feature.

To restore the factory settings

Press the RESET button.

The settings other than the following items in the menu can be reset by using the RESET button:
– "LANGUAGE"
– "CONVERGENCE"
– "PROG" in "MANUAL PROGRAM" and "PROGRAM SETUP"
– "FINE" in "MANUAL PROGRAM"
– "TV SYS"
– "SKIP"

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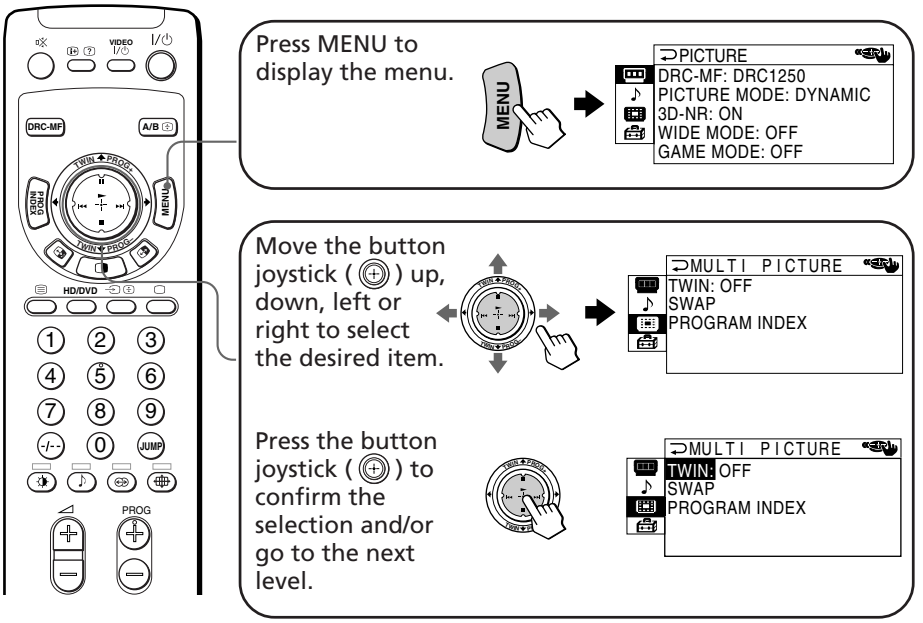
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

How to use the menu



Other menu operations

To	Press/Move
Adjust the setting value	Move ⊕ up, down, left or right.
Move to the next/previous menu level	Move ⊕ left or right.
Cancel the menu	Press MENU.

Tips

- If you want to exit from Menu level 2 to Menu level 1, move ⊕ up or down until the return icon (⮌) is highlighted, then press ⊕.
- The MENU, ENTER, and ◿ +/– (up/down) buttons on the projection TV can also be used for the operations above.

Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

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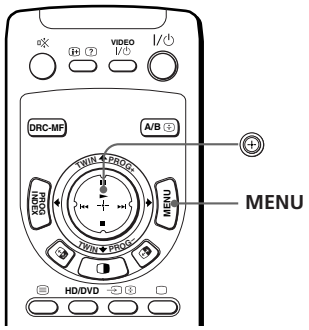
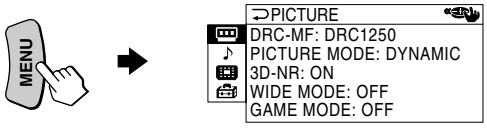
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Changing the "PICTURE" setting

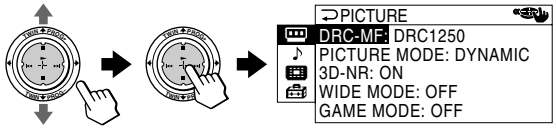
The "PICTURE" menu allows you to adjust the picture setting, view higher quality pictures, reduce picture noise, and adjust the picture setting that is suitable for viewing video games. You can also change the size of the picture on the screen when you receive wide mode (16:9) picture signals.



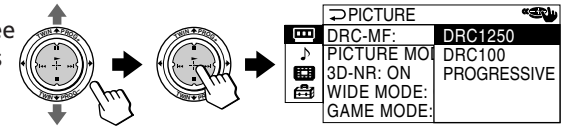
1 Press MENU.



2 Move ⊕ up or down to select ▭, then press ⊕.



3 Move ⊕ up or down to select the desired option (see the table below), then press ⊕.



Select	To
"DRC-MF"	activate the Digital Reality Creation-Multi Function feature to display higher quality pictures. Move ⊕ up or down to select "DRC1250", "DRC100" or "PROGRESSIVE"*, then press ⊕.
"PICTURE MODE"	receive suitable picture mode. Move ⊕ up or down to select "DYNAMIC", "STANDARD", "HI-FINE","PERSONAL"* or "ADJUST", then press ⊕.
"3D-NR"	improve the picture quality of TV or video if a signal received is weak. Move ⊕ up or down to select "ON", then press ⊕. To cancel, select "OFF", then press ⊕.

* When the "PERSONAL" mode is selected, the last adjusted picture setting from the "ADJUST" option is received (see page 38).

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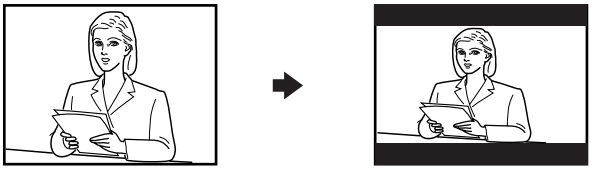
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Select	To
"WIDE MODE"	change the size of the picture when receiving wide-mode (16:9) picture signal. Move ⊕ up or down to select "ON", then press ⊕.  You can also change to wide-mode picture size by using the ⊞ button. To restore the normal picture size, select "OFF" then press ⊕.
"GAME MODE"	adjust the picture setting that is suitable to view video games. Move ⊕ up or down to select "ON", then press ⊕. To cancel, select "OFF", then press ⊕.

Tips

- For details on the options under the "DRC-MF" and "PICTURE MODE" modes, see pages 19 and 18, respectively.
- "GAME MODE" is available only when receiving signals through the ⇨ (video input), ⇨ (S video input), or ⇨ (component video input) jacks.
- When high-definition (HD) signals are input, "WIDE MODE", "GAME MODE", "3D-NR" and "DRC-MF" do not function. When you receive wide mode picture signal, 16:9 picture with black bands will be displayed.
- When progressive signals are input, "GAME MODE", "3D-NR" and "DRC-MF" do not function.

To return to the normal screen

Press MENU.

continued

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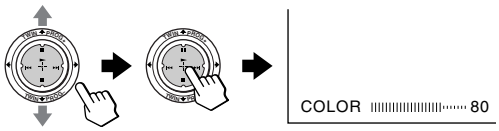
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Adjusting the "ADJUST" options under "PICTURE MODE"

1 Move ⊕ up or down to select the desired item (e.g., "COLOR"), then press ⊕.



2 Adjust the value according to the following table, then press ⊕.

For	Move ⊕ down or left to	Move ⊕ up or right to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

* You can adjust "HUE" for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to "Introducing the menu system" on page 33.

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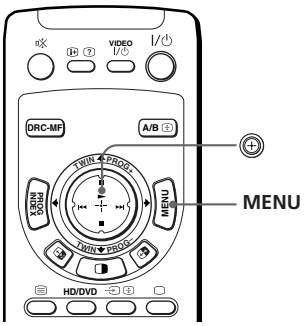
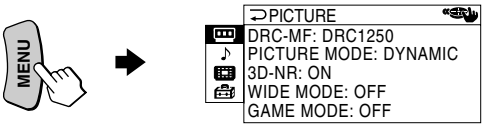
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Changing the “SOUND” setting

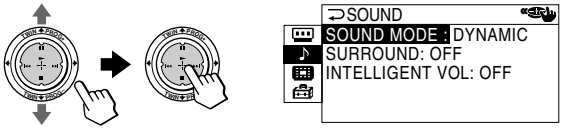
The “SOUND” menu allows you to adjust the sound setting and adjust the volume automatically. You can also listen to the sound with surround effect.



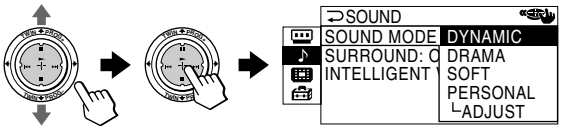
1 Press MENU.



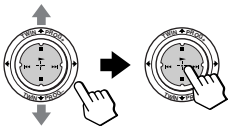
2 Move ⊕ up or down to select ♪, then press ⊕.



3 Move ⊕ up or down to select either “SOUND MODE”, “SURROUND”, or “INTELLIGENT VOL”, then press ⊕.



4 Move ⊕ up or down to select the desired option, then press ⊕.



For	Select
“SOUND MODE”	either “DYNAMIC”, “DRAMA”, “SOFT”, “PERSONAL”*, or “ADJUST”.
“SURROUND”	either “TruSurround”, “SIMULATED”, or “OFF”.
“INTELLIGENT VOL”	“ON” to adjust the volume of all TV programs automatically. To cancel, select “OFF”.

* When the “PERSONAL” mode is selected, the last adjusted sound setting from the “ADJUST” option is received (see page 40).

continued

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Tip

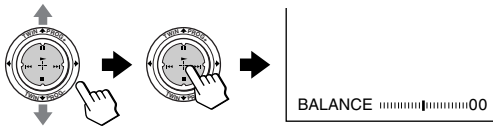
- For details on the options under the "SOUND MODE" and "SURROUND" modes, see pages 18 and 25, respectively.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" options under "SOUND MODE"

1 Move ⊕ up or down to select the desired item (e.g., "BALANCE"), then press ⊕.



2 Adjust the value according to the following table, then press ⊕.

For	Move ⊕
"BASS"	down or left to decrease the bass, up or right to increase the bass.
"TREBLE"	down or left to decrease the treble, up or right to increase the treble.
"BALANCE"	down or left to increase the left speaker's volume, up or right to increase the right speaker's volume.
"BBE"	up or down to select "HIGH", "LOW" or "OFF". "BBE" can produce clear sound.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to "Introducing the menu system" on page 33.

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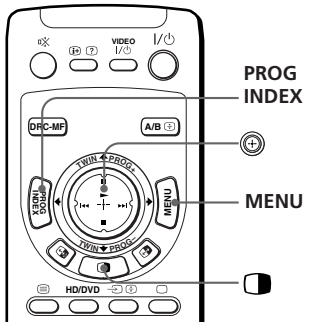
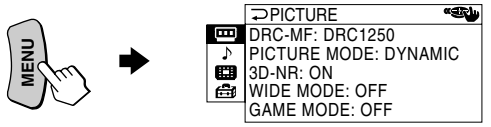
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Changing the "MULTI PICTURE" setting

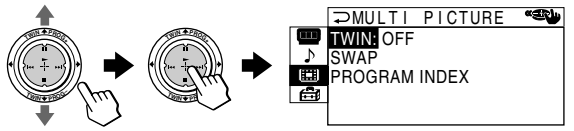
The "MULTI PICTURE" menu allows you to use the TWIN pictures, or PROGRAM INDEX feature.



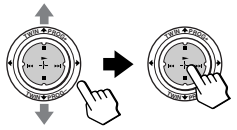
1 Press MENU.



2 Move ⊕ up or down to select ▣, then press ⊕.



3 Move ⊕ up or down to select the desired option (see the table below), then press ⊕.



Select	To
"TWIN"	display a different TV program beside the main picture. Move ⊕ up or down to select "ON", then press ⊕. To cancel, press ◑ or select "OFF", then press ⊕.
"SWAP"	swap the left and right pictures of the TWIN screen.
"PROGRAM INDEX"	view multiple programs on the sub-screens. To cancel, press PROG INDEX.

To return to the normal screen

Press MENU.

Tip

- For details on the menu system and how to use the menu, see "Introducing the menu system" on page 33.

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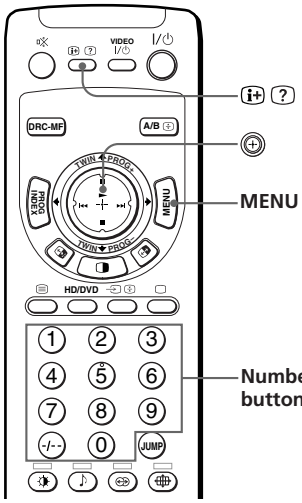
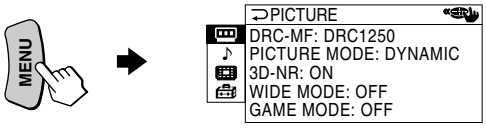
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Changing the "SETUP" setting

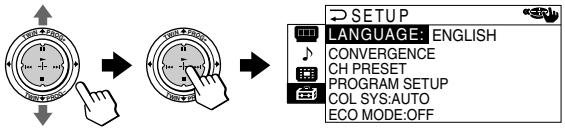
The "SETUP" menu allows you to adjust the setup of your projection TV. For example, you can change the menu language, adjust the convergence, preset channels, etc.



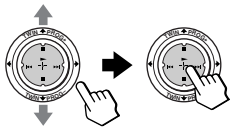
1 Press MENU.



2 Move ⊕ up or down to select 🧰, then press ⊕.



3 Move ⊕ up or down to select the desired option (see the table below), then press ⊕.



Select	To
"LANGUAGE"	change the menu language. Move ⊕ up or down to select "English", "**中文**" (Chinese), or "عربي" (Arabic), then press ⊕.

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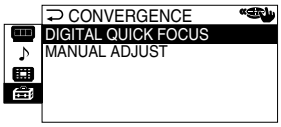
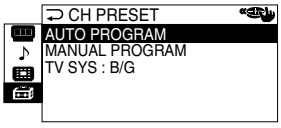
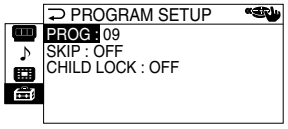
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Select	To
"CONVERGENCE"	adjust the convergence.  You can select automatic or manual convergence adjustment. See "Adjusting the convergence manually" on page 44.
"CH PRESET"	preset channels.  You can select automatic or manual channel presetting. See "Presetting channels manually" on page 45. You can change the TV system by selecting "TV SYS".
"PROGRAM SETUP"	skip unwanted channels, or block channels.  See "Skipping unwanted or unused channels" and "Blocking channels", respectively.
"COL SYS"	select the color system. Normally, set this to "AUTO". You can select the color system for each channel or each video input.
"ECO MODE"	reduce power consumption of your projection TV to save energy. Move ⊕ up or down to select "ON", then press ⊕. To cancel, select "OFF", then press ⊕.

Note

- If "ECO MODE" is on, the ECO MODE (ECO) icon will appear at the bottom right corner of the screen when you turn on the projection TV or when you press i+ on the remote.

To return to the normal screen

Press MENU.

continued

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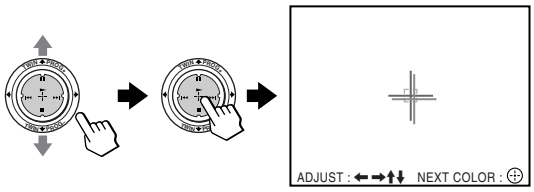
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

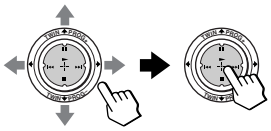
Adjusting the convergence manually

1 After selecting "CONVERGENCE", move ⊕ up or down to select "MANUAL ADJUST", then press ⊕.

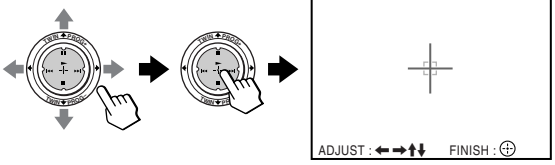
The cross pattern appears on the screen.



2 Move ⊕ up, down, left or right to adjust the red lines until they converge with the green lines, then press ⊕.



3 Move ⊕ up, down, left or right to adjust the blue lines until they converge with the center cross pattern, then press ⊕.



To return to the normal screen

Press MENU.

Tip

- Selecting "DIGITAL QUICK FOCUS" under "CONVERGENCE" allows you to adjust the convergence automatically. When the Digital Quick Focus feature is performed, manual adjustment values are erased.

Notes

- Adjust convergence about 20 – 30 minutes after the projection TV is first turned on.
- You cannot use the ◿ +/– buttons on the projection TV for manual convergence adjustment.

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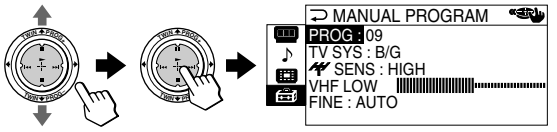
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Presetting channels manually

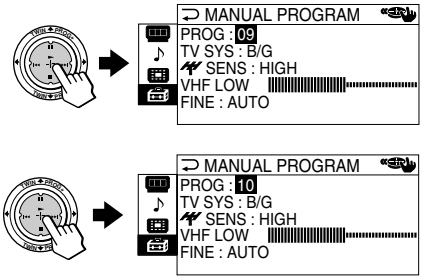
1 After selecting "CH PRESET", move ⊕ up or down to select "MANUAL PROGRAM", then press ⊕.



2 Select the program number to which you want to preset a channel.

(1) Make sure "PROG" is selected, then press ⊕.

(2) Move ⊕ up or down until the program number you want to preset (e.g., program number "10") appears on the menu, then press ⊕.



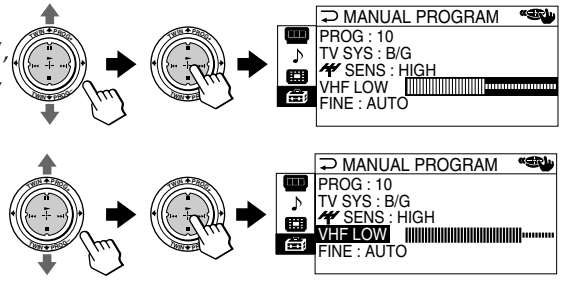
Tip

- You can also select the program number with the PROG +/– or number buttons.

3 Select the desired channel.

(1) Move ⊕ up or down to select either "VHF LOW", "VHF HIGH", or "UHF", then press ⊕.

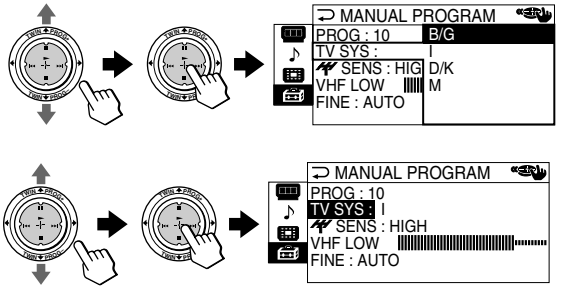
(2) Move ⊕ up or down until the desired channel's broadcast appears on the TV screen, then press ⊕.



4 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Move ⊕ up or down to select "TV SYS", then press ⊕.

(2) Move ⊕ up or down until the sound becomes normal, then press ⊕.



continued

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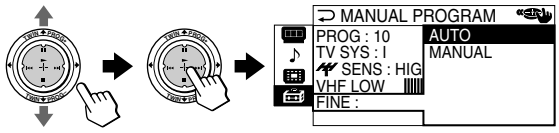
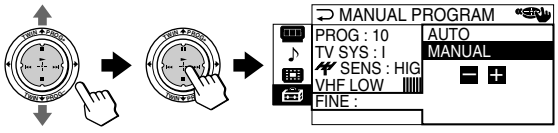
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

5 If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

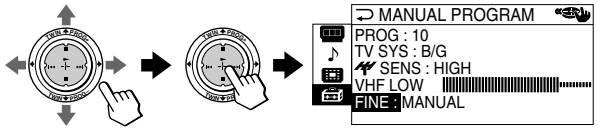
(1) Move ⊕ up or down to select "FINE", then press ⊕.



(2) Move ⊕ up or down to select "MANUAL", then press ⊕.

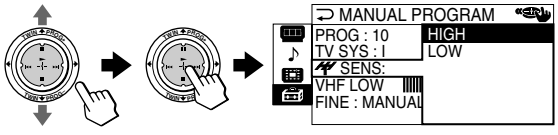


(3) Move ⊕ either up, down, left or right until the picture and sound quality are optimal, then press ⊕. The + or – icon on the menu flashes while tuning.

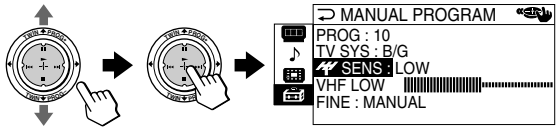


6 If the TV signal is too strong and the picture is distorted, you can adjust the TV reception sensitivity.

(1) Move ⊕ up or down to select "SENS", then press ⊕.



(2) Move ⊕ up or down to select "LOW", then press ⊕.



Notes

- The TV system ("TV SYS") and the TV reception sensitivity ("SENS") settings are memorized for each program number.
- If the channel you are presetting is a locked channel (page 48), that channel will be unlocked automatically.

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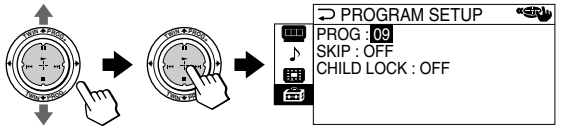
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

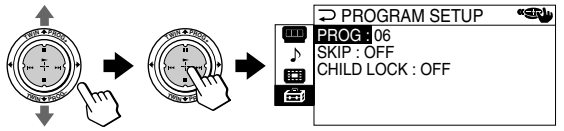
Skipping unwanted or unused channels (“SKIP”)

After performing automatic channel presetting, you can erase unwanted or unused channels.

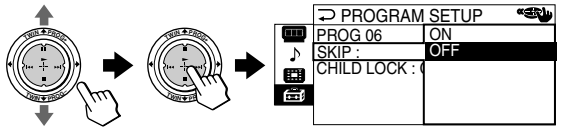
1 After selecting “PROGRAM SETUP”, make sure “PROG” is selected, then press ⊕.



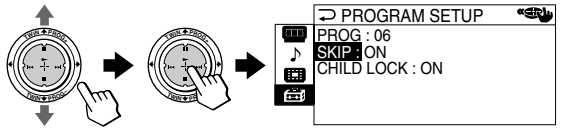
2 Move ⊕ up or down until the unused or unwanted channel number appears, then press ⊕.



3 Move ⊕ up or down to select “SKIP”, then press ⊕.



4 Move ⊕ up or down to select “ON”, then press ⊕.



5 To disable other channels, select “PROG”, then repeat steps **2** to **4**.

To restore the skipped channel

Select “OFF” in step 4.

To return to the normal screen

Press MENU.

continued

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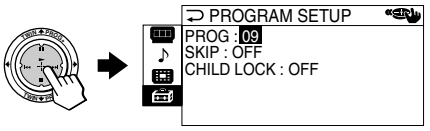
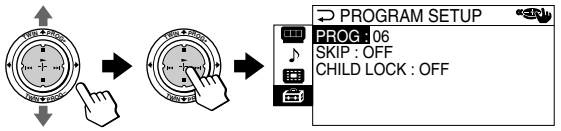
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Blocking channels ("CHILD LOCK")

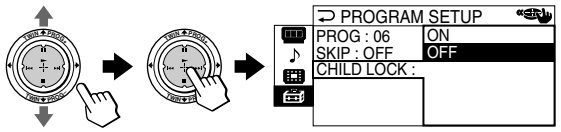
1 After selecting "PROGRAM SETUP" make sure "PROG" is selected, then press ⊕.



2 Move ⊕ up or down to select the desired channel (e.g. PR 06), then press ⊕.

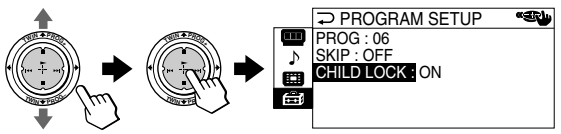


3 Move ⊕ up or down to select "CHILD LOCK", then press ⊕.



4 Move ⊕ up or down to select "ON", then press ⊕.
To unlock the channel, select "OFF".

The lock symbol (🔒) appears on the screen when "ON" is selected.



If a locked channel is selected, the lock symbol appears on the screen.

5 To lock other channels, select "PROG", then repeat steps **2** to **4**.

To return to the normal screen

Press MENU.

Note

- If you preset a locked channel manually (page 45), that channel will be unlocked automatically.

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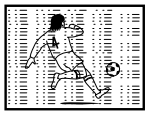
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Troubleshooting

If you have any problem while viewing your projection TV, please check the following troubleshooting guide. If the problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture  **Noisy sound** 	• The connection is loose or the cable is damaged.	• Check the antenna cable and connection on the projection TV, VCR and on the wall.	6
	• Channel presetting is inappropriate or incomplete.	• Display the “CH PRESET” menu under the “SETUP” menu and select “MANUAL PROGRAM” to preset the channel again.	45
	• The antenna type is inappropriate.	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	–
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture **Noisy sound** 	• Broadcast signals are too strong.	• Display the “CH PRESET” menu under the “SETUP” menu and select “MANUAL PROGRAM”. Then, select “ SENS: LOW”. • Turn off or disconnect the booster if it is in use.	46 –
Good picture **Noisy sound** 	• The TV system setting is inappropriate.	• If the sound of all the channels are noisy, display the “CH PRESET” menu under the “SETUP”menu and select “AUTO PROGRAM” to preset the channels again. • If the sound of some channels is noisy, select the channel, then display the “CH PRESET” menu under the “SETUP”menu and select the appropriate TV system (“TV SYS”).	43 45
	• The sound of the right picture is selected when TWIN pictures are displayed.	• Press or .	21

continued

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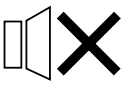
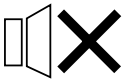
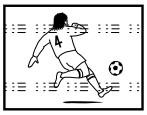
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
No picture **No sound** 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	6
	• The projection TV is not turned on.	• Press I/⏻ on the remote. • Press ⏻ on the projection TV to turn off the projection TV for about five seconds, then turn it on again.	15 16
Good picture **No sound** 	• The volume level is too low.	• Press + to increase the volume level.	16
	• The sound is muted.	• Press 🔇 to cancel the muting.	16
	• The broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	26
	• The sound of the right picture is selected when TWIN pictures are displayed.	• Press ◨ or ◧ .	21
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the projection TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or "ghosts" 	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.	– 46
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color 	• The color level setting is too low.	• Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	38
	• The color system setting is inappropriate.	• Display the "SETUP" menu and check the color system ("COL SYS") setting (usually set this to "AUTO").	43
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Symptom	Possible cause	Solutions	Page
Projection TV cannot receive stereo broadcast signal.	• The stereo reception setting is inappropriate.	• Press A/B until "AUTO" appears on the screen.	27
	• The sound of the right picture is selected when TWIN pictures are displayed.	• Press ⇔ or ◑ .	21
Stereo broadcast sound switches on and off or is distorted. **or** **The sound switches between stereo and monaural frequently.**	• The connection is loose or the cable is damaged.	• Check the antenna cable and connection on the projection TV, VCR and on the wall.	6
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• The broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	26
"100?" appears at the top of the screen after approximately 10 seconds and there is no Teletext display.	• The channel carries no Teletext broadcast.	—	28
Teletext display is incomplete (snowy picture or double images).	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the projection TV, VCR, and at the wall.	6
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is too low.	• Try using a booster. • Use the fine tuning ("FINE") function.	– 46
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	46
Cannot play shooting games.	• Some shooting games which involve pointing a light beam at the projection TV screen with an electronic gun or rifle cannot be used with your projectiion TV. For detail, see the instruction manual supplied with the video game software.	—	–

continued

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Projection TV cabinet creaks.	• Changes in room temperature sometimes make the projection TV cabinet expand or contract, causing a noise. This does not indicate a malfunction.	—	–
Static discharge is felt when touching the TV cabinet.	• This is the same static discharge that is felt when touching metal door handles or car doors especially when the air is dry, for example in winter. This does not indicate a malfunction.	—	–

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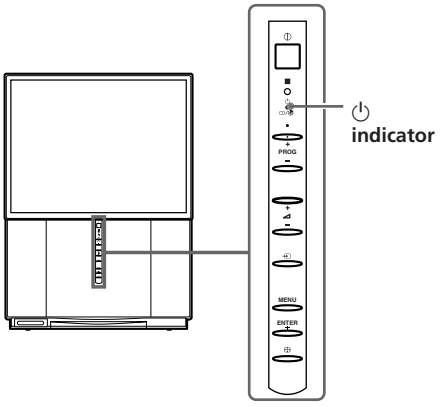
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Self-diagnosis function

Your projection TV is equipped with a self-diagnosis function. If there is a problem with your projection TV, the ⏻ (standby) indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

2 Count the number of times the ⏻ indicator flashes.

3 Press ⏻ (main power) to turn off your projection TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashed.

Be sure to note the model name and serial number located on the rear of your projection TV.

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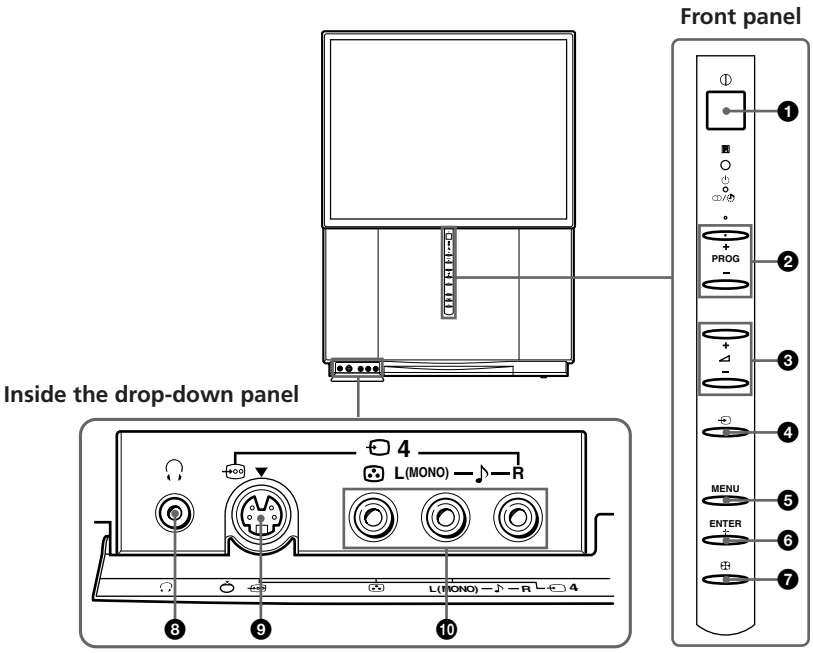
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Identifying parts and controls

Front and inside the drop-down panel



Button	Function	Page
❶ ⏻	Turn off completely or turn on the projection TV.	15
❷ PROG +/–	• Select program number. • View next/previous 12 TV programs in PROGRAM INDEX.	15 15
❸ ◿ +/–	• Adjust volume. • Select items in the menu.	16 35
❹ ⊸	Select TV or video input.	16
❺ MENU	Display the menu.	35
❻ ENTER ⊹	Confirm selected items.	35
❼ ⊞	Adjust convergence automatically.	9
❽ ∩	Headphone jack	–
❾ ⊸	Connect to S video output of video equipment.	10
❿ ⊸ 4	Connect to video/audio outputs of equipment.	10

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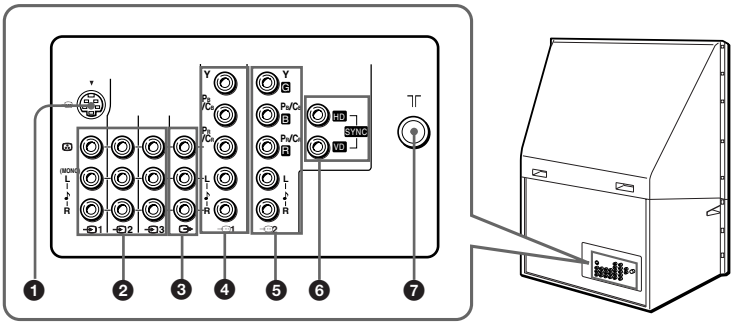
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Rear



Button	Function	Page
❶ ⇢	Connect to S video output of video equipment.	7
❷ 1/2/3	Connect to video/audio outputs of video equipment.	7
❸	Connect to video/audio inputs of audio/video equipment.	11
❹ 1	Connect to component video outputs on a DVD player.	12, 14
❺ 2	Connect to component video outputs on a DVD player. Connect to a digital TV receiver equipped with the G/B/R/HD /VD outputs.	12, 14
❻ SYNC HD/VD	Connect to HD/VD outputs on a digital TV receiver.	14
❼	Connect the antenna cable.	6

continued

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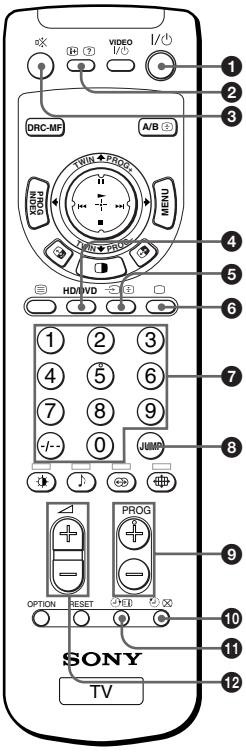
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Remote control



The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations
Yellow	For TWIN picture operations
Pink	For optional components operations

Button	Function	Page
❶ I/⏻	Turn off temporarily or turn on the projection TV.	15
❷ ⓘ+ ?	• Display on-screen information. • Reveal Teletext concealed information.	16 29
❸ 🔇	Mute the sound.	16
❹ HD/DVD	Select component input.	16
❺ ⏎ ⏏	• Select TV or video input. • Stop Teletext page from scrolling.	16 29
❻ ▭	• Display the TV program. • Turn off Teletext	16 28
❼ 0 – 9, -/--	Input numbers.	15
❽ JUMP	Jump to previous channel.	16
❾ PROG +/–	• Select program number. • View next/previous 12 TV programs in PROGRAM INDEX.	15 23
❿ ⏲ ⊠	• Set projection TV to turn off automatically. • Show TV screen while waiting for Teletxt page.	17 29
⓫ ⏲ ⓘ	• Set projection TV to turn on automatically. • Display Teletext service contents.	17 29
⓬ 🔊 +/–	Adjust volume.	16

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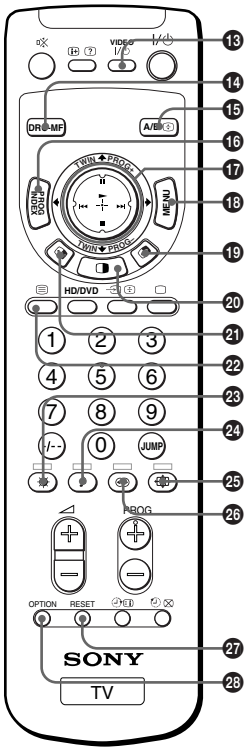
Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)



Button	Function	Page
⓭ VIDEO I/⏻	• Power. • Use with the number buttons to set up the remote.	31 30
⓮ DRC-MF	Select DRC-MF mode.	19
⓯ A/B	• Select stereo/bilingual mode. • Enlarge the Teletext display.	26 29
⓰ PROG INDEX	Display all preset TV programs.	23
⓱	• Select, adjust and confirm selected items in the menu. • Adjust twin picture size. • Display TWIN pictures. • Select a program of the right picture. • Select desired program in PROGRAM INDEX. • Operate optional components.	35 21 22 22 24 31
⓲ MENU	Display the menu.	35
⓳	Swap the left and right pictures.	21
⓴	Display TWIN pictures.	20
㉑	Swap sound between the left and right pictures.	21
㉒	Display a Teletext page.	28
㉓ (red)	• Select picture mode. • Access a FASTEXT menu.	18 29
㉔ (green)	• Select sound mode. • Access a FASTEXT menu.	18 29
㉕ (blue)	• Select wide mode. • Access a FASTEXT menu.	37 29
㉖ (yellow)	• Select surround mode. • Access a FASTEXT menu.	25 29
㉗ RESET	Reset items in the menu to the factory preset values.	34
㉘ OPTION	Use with to operate optional components.	31

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Sony KP-FX53/FX43 M61 (**GB**/FR/CT/CS/PR/AR).4-090-470-**21** (1)

Specifications

	KP-FX53M61	KP-FX43M61
Projection system	3 picture tubes, 3 lenses, horizontal inline system	
Picture tube	7 inch high-brightnes monochorome tubes, with optical coupling and liquid cooling system	
Projection lenses	High performance, large-diameter highbrid lens F1.0	
Screen size	53 inches	43 inches
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual (German) B/G	
Channel coverage		
B/G	VHF : E2 to E12 / UHF : E21 to E69 / CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 / CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 / UHF : A14 to A79/ CATV : A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	12W + 12W (7% distortion)	
Number of terminal		
(Video)	Input: 4 Output: 1	Phono jacks; 1 Vp-p, 75 ohms
(Audio)	Input: 4 Output: 1	Phono jacks; 500 mVrms
(S Video)	Input: 2	Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms
(Component Video)	Input: 2	Phono jacks Y: 1 Vp-p, 75 ohms, sync negative P_B/C_B: 0.7 Vp-p, 75 ohms P_R/C_R: 0.7 Vp-p, 75 ohms Audio: 500 mVrms
(G/B/R/HD/VD Video)	Input: 1	Phono jacks G: 0.7 Vp-p, 75 ohms B: 0.7 Vp-p, 75 ohms R: 0.7 Vp-p, 75 ohms HD: 0.7 Vp-p, 75 ohms VD: 0.7 Vp-p, 75 ohms
(Headphones)	Output: 1	Stereo minijack
Power requirements	110-240 V AC, 50/60Hz	
Power consumption (W)	260 W	
Dimensions (w/h/d, mm)	1136 × 1438 × 666	926 × 1255 × 534
Mass (kg)	86	65.5

Design and specifications are subject to change without notice.

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